



Planning and Zoning Commission

Monday, September 19, 2022 at 6:00 pm

PLEASE SILENCE ALL CELL PHONES AND ELECTRONIC DEVICES. THANK YOU

1. Meeting Information

207 Muegge Way, Bennett, CO 80102

For a live stream of the meeting use the information below:

[https://us06web.zoom.us/j/84141319297?
pwd=WEpWemEvTHRBaXY3R1dkZEtKNzRnUT09](https://us06web.zoom.us/j/84141319297?pwd=WEpWemEvTHRBaXY3R1dkZEtKNzRnUT09)

Meeting ID: 841 4131 9297

Passcode: 918843

2. Call to Order

Chair

a. Roll Call

3. Approval of Agenda

Chair

4. Consent Agenda

Chair

a. July 18, 2022 - Regular Meeting Minutes

Attachments:

- **July 18, 2022 - Regular Meeting Minutes** (planning-and-zoning-commissi
on_minutes_2022-07-18_171007.pdf)

Public Comments on Items Not on the Agenda

The Planning and Zoning Commission welcomes you. Thank you for joining us for our Town of Bennett Planning and Zoning Meeting. If you are not speaking, we ask that you please mute your microphone. For public comment please sign up on the provided sheet or in the chat box. If you are on the phone, once we get through the sign-up sheet and chat box we will call for any other comments for items not on the agenda.

Your comments will be limited to three (3) minutes. The Commission may not respond

to your comments this evening, rather they may take your comments and suggestions under advisement and provide direction to the appropriate member of Town staff for follow-up. Thank you.

Regular Business

5. Public Hearing

a. Case No. 22.11 - The Shops at Bennett Subdivision, Amendment No. 1 Final Plat

Resolution No. 2022-17 - A Resolution Recommending Approval of A Final Plat for The Shops at Bennett Subdivision, Amendment No. 1

Steve Hebert, Planning Manager

Attachments:

- **Public Hearing Script** (0_-_Public_Hearing_Script.PC.pdf)
- **Staff Report - Case No. 22.11 - The Shops at Bennett Subdivision, Amendment No. 1 Final Plat** (Shops_at_Bennett_Sub_Amend_No1_P_Z_Staff_Report_09_19_22_FINAL.pdf)
- **Staff PowerPoint Presentation** (1_Shops_at_Bennett_Amend_1_P_Z_Presentation_09_19_22_FINAL.pdf)
- **Land Use Application** (2_SAB2-Application.pdf)
- **Applicant's Letter of Intent** (3_SAB2-Letter_of_Intent.pdf)
- **Proposed Final Plat** (4_SAB2-plat.pdf)
- **Traffic Impact Analysis** (5_SAB2-traffic_impact_analysis.pdf)
- **Combined Referral Agency Responses** (6_CombinedReferralComments_Shops_at_Bennett_Amend_1.pdf)
- **Resolution No. 2022-17 - A Resolution Recommending Approval of A Final Plat for the Shops at Bennett Subdivision, Amendment No. 1** (Shops_at_Bennett_AmendNo1_FP.PCReso_2022-17.pdf)
- **Suggested Motion** (Suggested_Motion.pdf)

6. Action/Discussion Item

7. Commissioner Comments/Reports

8. Adjournment

Contact: Christina Hart (chart@bennett.co.us 1 303 644 3249 x1001) | Agenda published on 09/14/2022 at 11:44 AM



DRAFT

Planning and Zoning Commission

Minutes

Monday, July 18, 2022 at 6:00 pm

PLEASE SILENCE ALL CELL PHONES AND ELECTRONIC DEVICES. THANK YOU

1. Meeting Information

207 Muegge Way, Bennett, CO 80102

2. Call to Order

Chair

a. Roll Call

Minutes:

Present:

Martin Metsker

Gino Childs

Wayne Clark - Excused

James Delaney

Grider Lee

Scott Smith - Excused

Rachel Connor

Staff Present:

Steve Hebert, Planning Manager

Chad Bunger, Community and Economic Development Director

Dan Giroux, Town Engineer

Savannah Vickery, Secretary

Mike Heugh, Traffic Engineer

Public Present:

Jerry Walls

Kayle Walls

Lindsay Walls

Mark Zuber

Jerry Yokun

Dianne Yokun

Steven Wilson

DRAFT

DRAFT

DRAFT

John Vitella
Kurt Rotering
Chris McGranahan
Gary Walter
Paul Shoukas
Steve Walters

3. Approval of Agenda

Chair

Minutes:

COMMISSIONER CONNOR MOTIONED, COMMISSIONER LEE SECONDED to approve the agenda as presented:

Ayes: Childs, Connor, Delaney, Lee, Metsker

Nays: None

Absent: Clark, Smith

Martin Metsker, Chairman, declared the motion carried by unanimous vote.

4. Consent Agenda

Chair

a. June 27, 2022 - Regular Meeting Minutes

Minutes:

COMMISSIONER LEE MOVED, COMMISSIONER DELANEY SECONDED to approve the consent agenda. The voting was as follows:

Ayes: Delaney, Lee, Metsker, Childs, Connor

Nays: None

Absent: Clark, Smith

Martin Metsker, Chairman, declared the motion carried by unanimous vote. A.

Action: Approval of June 27, 2022 Regular Meeting Minutes

Public Comments on Items Not on the Agenda

The Planning and Zoning Commission welcomes you. Thank you for joining us for our Town of Bennett Planning and Zoning Meeting. If you are not speaking, we ask that you please mute your microphone. For public comment please sign up on the provided sheet or in the chat box. If you are on the phone, once we get through the sign-up sheet and chat box we will call for any other comments for items not on the agenda.

Your comments will be limited to three (3) minutes. The Commission may not respond to your comments this evening, rather they may take your comments and suggestions under advisement and provide direction to the appropriate member of Town staff for follow-up. Thank you.

5. Public Hearing

a. Case No. 22.22 - Love's Filing 1 Subdivision Final Plat

Resolution No. 2022-12 - A Resolution Recommending Approval of the Final Plat for Love's Filing 1

Minutes:

Martin Metsker, Chairman, called the matter of Case 22.22 - Love's Subdivision Final Plat to order.

The public hearing was opened at 6:04 p.m.

Savannah Vickery, Secretary, stated in accordance with the Colorado state statute, it was duly posted and published in the Eastern Colorado News on June 24, 2022. Legal #2663.

Steve Hebert, Planning Manager, presented the combined reports for the Love's Subdivision Final Plat and Conditional Use Permit for expanded parking.

PUBLIC COMMENTS

There were no public comments provided.

The public hearing was closed at 6:57 p.m.

COMMISSIONER CONNOR MOVED, COMMISSIONER DELANEY SECONDED

to recommend approval of Resolution No. 2022-12 - A Resolution Recommending Approval of the Final Plat for Love's Filing 1. The voting was as follows:

Ayes: Metsker, Connor, Delaney

Nays: Childs, Lee

Absent: Clark, Smith

Martin Metsker, Chairman, declared the motion passed 3 to 2.

b. Case No. 22.24 - Love's Conditional Use Permit for Expanded Truck Parking

Resolution No. 2022-13 - A Resolution Recommending Approval of Love's Conditional Use Permit for Expanded Truck Parking.

Minutes:

Martin Metsker, Chairman, called the matter of Case 22.24 - Love's Conditional Use Permit for Expanded Truck Parking to order.

The public hearing was opened at 7:03 p.m.

Savannah Vickery, Secretary, stated in accordance with the Colorado state statute, it was duly posted and published in the Eastern Colorado News on June 24, 2022. Legal #2663.

Steve Hebert, Planning Manager, referred to the previous combined presentation for Love's Subdivision Final Plat and Conditional Use Permit for Extended Parking.

PUBLIC COMMENTS

There were no public comments provided.

The public hearing was closed at 7:06 p.m.

COMMISSIONER DELANEY MOVED, COMMISSIONER CONNOR SECONDED

to recommend approval of Resolution No. 2022-13 - A Resolution Recommending Approval of Love's Conditional Use Permit for Expanded Truck Parking. The voting was as follows:

Ayes: Metsker, Connor, Delaney

Nays: Childs, Lee

Absent: Clark, Smith

Martin Metsker, Chairman, declared the motion passed 3 to 2.

c. Case No. 22.12 - Walls Subdivision Final Plat

Resolution No. 2022-14 - A Resolution Recommending Approval of a Final Plat for Walls Subdivision.

Minutes:

Martin Metsker, Chairman, called the matter of Case 22.12 - Walls Subdivision Final Plat to order.

The public hearing was opened at 7:08 p.m.

Savannah Vickery, Secretary, stated in accordance with the Colorado state statute, it was duly posted and published in the Eastern Colorado News on July 1, 2022. Legal #2666.

Steve Hebert, Planning Manager, presented the combined presentation for the proposed Final Plat and proposed Rezoning for the property.

PUBLIC COMMENTS

There were no public comments presented.

The public hearings were closed at 7:35 p.m.

COMMISSIONER CONNOR MOVED, COMMISSIONER LEE SECONDED

to recommend approval of Resolution No. 2022-14 - A Resolution Recommending Approval of a Final Plat for Walls Subdivision. The voting was as follows:

Ayes: Metsker, Childs, Connor, Delaney, Lee

Nays: None

Absent: Clark, Smith

Martin Metsker, Chairman, declared the motion carried by unanimous vote.

d. Case No. 22.13 - Walls Industrial Rezoning

Resolution No. 2022-15 - A Resolution of the Bennett Planning and Zoning Commission Recommending Approval of a Rezoning for Lot 1 of Walls Subdivision.

Minutes:

Martin Metsker, Chairman, called the matter of Case 22.13 - Walls Industrial Rezoning to order.

The public hearing was opened at 7:09 p.m.

Savannah Vickery, Secretary, stated in accordance with the Colorado state statute, it was duly posted and published in the Eastern Colorado News on July 1, 2022. Legal #2666.

Steve Hebert, Planning Manager, presented the combined presentation for the proposed Rezoning and the Final Plat for the property.

PUBLIC COMMENTS

There were no public comments presented.

The public hearings were closed at 7:35 p.m.

COMMISSIONER DELANEY MOVED, COMMISSIONER LEE SECONDED to recommend approval of Resolution No. 2022-15 - A Resolution Recommending Approval of a Rezoning for Lot 1 of Walls Subdivision. The voting was as follows:

Ayes: Metsker, Childs, Connor, Delaney, Lee

Nays: None

Absent: Clark, Smith

Martin Metsker, Chairman, declared the motion carried by unanimous vote.

e. Recommended Updates to Chapter 16 of the Bennett Municipal Code Related to Telecommunications Facilities

Resolution No. 2022-16 - A Resolution Recommending Approval of an Ordinance Amending Chapter 16 of the Bennett Municipal Code Concerning Wireless Communication Facilities

Minutes:

Martin Metsker, Chairman, called the matter of Recommended Updates to Chapter 16 of the Bennett Municipal Code Related to Telecommunications Facilities to order.

The public hearing was opened at 7:38 p.m.

Savannah Vickery, Secretary, stated in accordance with the Colorado state statute, it was duly posted and published in the Eastern Colorado News on July

1, 2022. Legal #2667.

Steve Hebert, Planning Manager, presented the proposed updates to Chapter 16 of the Municipal code related to Telecommunications Facilities.

PUBLIC COMMENTS

There were no public comments presented.

The public hearing was closed at 7:53 p.m.

COMMISSIONER LEE MOVED, COMMISSIONER DELANEY SECONDED to recommend approval of Resolution No. 2022-16 - A Resolution Recommending Approval of a an Ordinance Amending Chapter 16 of the Bennett Municipal Code Concerning Wireless Communication Facilities. The voting was as follows:

Ayes: Metsker, Childs, Connor, Delaney, Lee

Nays: None

Absent: Clark, Smith

Martin Metsker, Chairman, declared the motion carried by unanimous vote.

6. Action/Discussion Item

a. Case No. 22.21 - Muegge Farms Filings 5 & 6 Sketch Plan

Minutes:

Steve Hebert, Planning Manager, presented Case No. 22.21 - Muegge Farms Filings 5 & 6 Sketch Plan. The applicant also provided a presentation.

No action was needed.

7. Commissioner Comments/Reports

8. Adjournment

Minutes:

COMMISSIONER LEE MOVED, COMMISSIONER DELANEY SECONDED to adjourn the meeting. The meeting was adjourned at 8:13 p.m. Voting was as follows:

Ayes: Metsker, Childs, Connor, Delaney, Lee

Nays: None

Absent: Clark, Smith

Martin Metsker, Chairman, declared the motion carried by unanimous vote.

Minutes Approved:

Martin Metsker, Chair

Christina Hart, Secretary

**QUASI-JUDICIAL PUBLIC HEARING SCRIPT
(PLANNING COMMISSION)**

CHAIR: I will now open the public hearing on the following application: Case 22.11 - The Shops at Bennett Subdivision, Amendment No. 1 Final Plat.

The purpose of the hearing is to provide a public forum for all interested parties who wish to comment on an application before the Commission. If you wish to speak please write your name and address on the sign-up sheet or in the chat box and you will be called on.

The Procedure for the public hearing will be as follows:

FIRST, there will be a presentation by the Town staff.

NEXT, we will have a presentation by the applicant.

After these two presentations we will allow people who signed up to speak for up to 3 minutes each. Please **DO NOT REPEAT** points made by others. It is fine to say, "I agree with the previous speaker's comments". Please direct your comments to the Commission, not the applicant or Town staff.

After receiving public comments, we will allow the applicant an opportunity to respond.

NEXT, the Planning Commission members may ask questions of anyone who testified.

I will then close the public hearing and no further testimony or other evidence will be received. The Planning Commission will discuss the matter and may take some kind of action.

Public hearings are recorded for the public record. All testimony must be presented, after you give your full name and address.

CHAIR: Do we have proper notification?

[Secretary to confirm on record notice has been provided]

Do any Commission members have any disclosures?

[Commissioners to disclose conflicts of interests, ex parte contacts, etc]

Town staff, please introduce the applicant and provide your staff report.

[Staff presentation]

Will the applicant or the applicant's representative present the application?

[Applicant presentation]

Do any of the Commissioners have questions of the applicant or Town staff?

[Question and Answer]

CHAIR: I will now open the public comment portion of the public hearing. For those wishing to speak, please clearly state your name and address for the record. **Page 10**

Has anyone signed up to speak at this public hearing?

[If more than one person has signed in, call them in order.]

Is there any interested party in the audience that has not signed up but who wishes to speak regarding the application?

[Additional public comment]

If there is no more public comment, I will now close the public comment portion of the public hearing.

CHAIR: Does the applicant wish to respond to any of the comments?

[Opportunity for applicant to provide any rebuttal evidence]

CHAIR: Before we turn to Commissioner questions and deliberation, I want to state that the documents included within the record for this public hearing include all application materials submitted by the applicant; all materials included in the Planning Commission packets; any PowerPoint or other presentations given tonight; all written referral and public comments received regarding the application; the public comment sign-up sheet; the public posting log and photographs of the notice, and the Town's subdivision and zoning ordinances and other applicable regulations. Does anyone have any objection to inclusion of these items in the record?

CHAIR: I will now close the public hearing and the Planning Commission members will deliberate on the evidence presented. During deliberations, Commission members may ask questions of Town staff, but no further public comment or other testimony or evidence will be received.

Who would like to begin?

Who is next?

Any other questions or comments

[If anyone believes the applicable criteria have not been met, then please explain why so we have those reasons for the record.]

CHAIR: We have a draft Resolution in front of us and I would entertain a motion.

We have a motion on the floor by Commissioner _____ and a second by Commissioner _____ to approve Planning and Zoning Commission Resolution No. 2022-17.

May we have a Roll-Call vote?

Motion carries/fails.

STAFF REPORT



welcome neighbors.

TO: Members of the Planning and Zoning Commission
FROM: Steve Hebert, Planning Manager
DATE: September 19, 2022
SUBJECT: Case No. 22.11 – The Shops at Bennett Subdivision, Amendment No. 1 Final Plat

Applicant: Shops at Civic Center, LLC (Forrest Charlesworth)

Location: Near the Southwest Corner of Centennial Drive and 1st Street/CO Highway 79 and Northwest Corner of Bennett Avenue and 1st Street (See Vicinity Map)

Purpose: Final Plat to Subdivide 4.17 Acres Currently Zoned C- General Commercial

Background

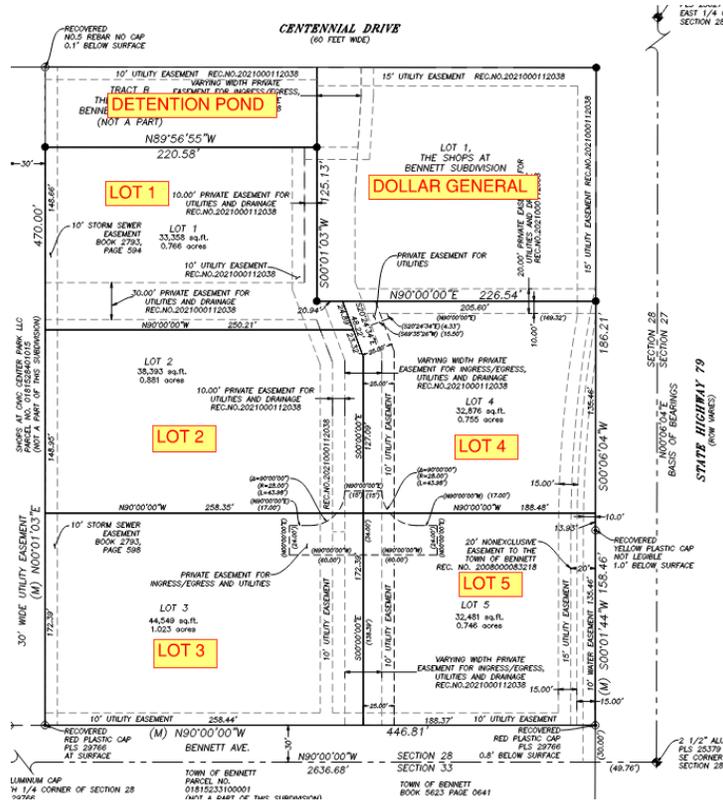
Case No. 22.11 is an application to amend the Shops at Bennett Subdivision Final Plat to further subdivide Tract A. The original Shops at Bennett Subdivision created Lot 1, which is now the Dollar General property. The original plat also created Tract A and Tract B. Tract A is 4.17 acres and was reserved for future subdivision. Tract B is now the detention pond, which serves the Shops at Bennett. The property is near the southwest corner of Centennial Drive and 1st Street/CO Highway 79, immediately south and west of Dollar General. See the vicinity map below.



The Shops at Bennett project lies just north of the Bennett Town Hall, the Veteran's Memorial, the Adams County Shared Services building and the Bennett Recreation Center.

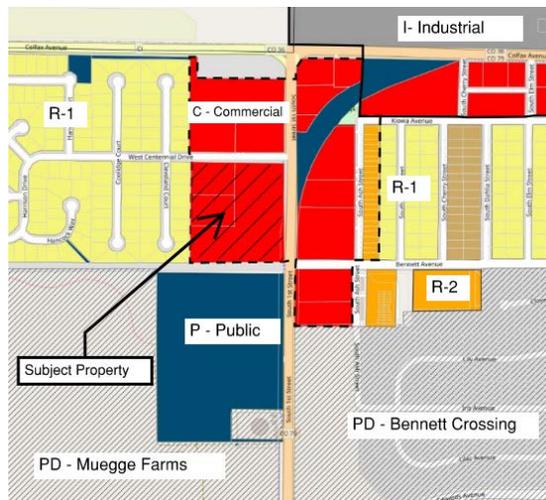
Proposed Subdivision Plat

The illustration below shows the proposed lot layout creating five new lots for future commercial development. Access to the five lots will be via an internal private drive off Centennial Drive north of the subdivision. There will not be any access to Bennett Avenue. See the traffic discussion below for more details.



Zoning and Land Use Regulations

The subject property is currently zoned C - General Commercial District. The map below shows the zoning of the property and the surrounding area, including a mix of residential, commercial, planned development and public zone districts.



The table below summarizes the zoning and land use on properties immediately adjacent to the subject property.

Direction	Adjacent Zone District	Land Use
North	C- General Commercial District	Dollar General, Bank and Vacant Lot
East	C- General Commercial District	Dollar General, Bank, Church, U.S. Post Office
South	P – Public District	Town Hall, County Shared Services Building, Veteran’s Memorial
West	R-1 - Low Density Residential District	Residential –Centennial Subdivision

The property also lies within the Main Street Downtown overlay district. The eventual site plan will be reviewed for compliance with the Main Street elements of the Bennett Development Design Guidelines.

Public Services and Utilities

The subject property is served by the following:

Water

Water will be provided by the Town of Bennett. Extension of the Town’s water system is proposed as part of this development.

Sanitary Sewer

Sanitary sewer will be provided by the Town of Bennett. Extension of the sanitary sewer system is proposed as part of this development.

Stormwater Management

Stormwater will be collected and conveyed in accordance with Town standards to prevent any on-site or off-site flooding. The existing detention pond constructed as part of the Dollar General project will accommodate the stormwater from this subdivision.

Access and Traffic

Vehicular access will be provided to the commercial subdivision by a private internal drive that connects with Centennial Drive to the north. There is no access via Bennett Avenue, consistent with the Colorado Department of Transportation’s (CDOT) request. As part of the original Shops at Bennett Subdivision Final Plat, the Town required the property owner to dedicate additional right-of-way (ROW) along the east side of the property along CO Highway 79 consistent with a future 100-foot highway ROW profile for that section of the highway.

The applicant submitted a traffic impact analysis (TIA) prepared by LSC Transportation Consultants, Inc. One key element of a traffic impact analysis is the concept of Level of Service (LOS). The State of Colorado Highway Access code describes LOS as “a measure describing the operational conditions within a stream of traffic. The measure uses factors including speed, travel time, ability to maneuver, traffic interruptions, safety, waiting time periods (delay), and driver comfort and convenience.” LOS ranges from A to F, including LOS E, and correlates to the level of congestion or amount of delay, as described above.

Below is the Town Traffic Engineer’s assessment of the applicant’s TIA.

1. All movements operate at acceptable LOS (C or better) through 2042 without the development.
2. All movements operate at acceptable LOS (C or better) through 2042 with the development with the exception of the eastbound left (EBL) turn from Centennial Drive north to CO Highway 79 which operates at LOS D in the PM peak hour in 2024. LOS D is considered acceptable LOS.
 - o This includes the site access intersection on Centennial Drive. Analysis shows LOS A and less than 1 queued vehicle in the PM peak hour.
3. Once CO Highway 79 is realigned and traffic along this segment of the highway is reduced, that turning movement returns a LOS C, which is similar to existing conditions.
4. LOS D delay ranges from 25 seconds to 35 seconds per vehicle and is described as tolerable delay or congestion. Drivers may wait a little longer to find gaps in the traffic flow. This amount of delay generally does not result in drivers feeling frustrated, leading to unsafe driving maneuvers.
5. For the Shops at Bennett, delay for the EBL in the PM peak hour was reported at 27.1 second/vehicle which is on the lower end of the LOS D range of delay.
6. The southwest corner radius of Centennial Drive and CO Highway 79 (closest to Dollar General) is shown to be increased, along with the SH 79 center median being pulled back. This should allow for improved turning movements for larger vehicles (delivery trucks, bus, etc.) heading southbound on CO Highway 79. The Town will continue to work with the applicant on additional improvements, including widened lanes and paved shoulders, northwest corner radius, and combinations of those, to address and potentially improve large vehicle movements.
7. A southbound acceleration lane is proposed on CO Highway 79 to meet State Highway Access Code requirements. This should allow vehicles to reach adequate speeds, creating increased safety conditions for all users as they merge. This acceleration lane can be constructed with minor widening to SB CO Highway 79 as part of the Shops development.

Regarding pedestrian access, the Town is requiring an access easement be provided that will accommodate pedestrian access along the internal drive and then extend to the south property line. At the time of site plan review, the Town will require a sidewalk improvement south to the Veteran's Memorial and Town Hall and also east along the Bennett Avenue alignment to connect with the regional trail along west side of the highway. This will provide safe and convenient pedestrian and bike access to the Shops at Bennett.

Fire and Rescue

Bennett-Watkins Fire Rescue will provide fire protection service. Development will be subject to the International Fire Code (IFC). An easement for a "hammerhead" turnaround will be dedicated on the final plat to assure adequate turnarounds for emergency vehicles.

Gas, Electricity and Telecommunications

Natural gas will be provided by Colorado Natural Gas, electricity by CORE Electric Cooperative and telecommunications by Eastern Slope Technologies (ESRTA) or Comcast. Appropriate easements for these providers are identified on the final plat.

Subdivision Agreement Required

A subdivision agreement (SA) that identifies and guarantees public improvements, including but not limited to streets, sidewalks/trails, water, sanitary sewer and storm water management is required prior to the issuance of an infrastructure permit. A note to that effect will be added to the final plat.

Public Land Dedication Requirements

Per Section 16-5-510 of Bennett Municipal Code, at the time of subdivision, the subdivider shall dedicate to the Town and improve to the Town's specifications usable tracts of land that are free from liens or encumbrances, for park land and public facilities. This land may be used for public parks, trails, open space, public facilities or recreational purposes. The public land dedication requirement shall be equal to ten percent (10%) of the total land area contained within the subdivision regardless of zoning classification.

Because the Town would derive greater benefit at the time from a cash-in-lieu payment than from the provision of land, such cash-in-lieu will be determined in a future Subdivision Agreement (SA).

Staff Analysis and Findings

Per Section 16-4-380 of the Bennett Municipal Code, the Town shall use the following criteria to evaluate the applicant's final plat application:

- A. The final plat incorporates recommended changes, modifications and conditions attached to the sketch plan unless otherwise approved by the Planning Commission.

Staff Finding: The sketch plan process has been waived because of the previous review of the original Shops at Bennett Subdivision.

- B. All applicable technical standards in accordance with this Chapter and adopted Town documents have been met.
 - 1. To establish appropriate standards for subdivision design that will:
 - a. Encourage the development of sound, economical and stable neighborhoods and healthy living environments, in conformance with the goals and policies of the Comprehensive Plan.
 - b. Provide lots of adequate size, configuration and design for the purpose for which they are intended to be used.
 - c. Promote superior design and design flexibility.
 - d. Preserve the significant natural features and environmental quality of the Town.
 - e. Guide the physical development of the Town in ways that complement the Town's character and culture.
 - f. Promote a cohesive sense of community among new and current residents, precluding neighborhood design or restrictions that in any way isolate any neighborhood from the rest of the community.
 - g. Provide complete and accurate public land records.

Staff Finding: The proposed subdivision will accommodate new development that meets the standards of good subdivision design.

- 2. To establish standards for utilities and other public services that will:
 - a. Provide an efficient, adequate and economical supply of utilities and services to land proposed for development without adverse effects to property that is currently served.
 - b. Ensure that adequate stormwater drainage, sewage disposal, water supply and other utilities, services and improvements needed as a consequence of the subdivision of the land are provided.
 - c. Provide for the reasonable extension of utilities and services to other lands that may be developed in the future.
 - d. Provide the equitable distribution of the cost of new and expanded public services needed to support new land development.

Staff Finding: The proposed subdivision will accommodate extension of utilities and public services to serve the property. The applicant will be required to pay for the project's fair share of undergrounding the overhead CORE electric line along the east side of the property.

3. To ensure the provision of adequate and safe traffic circulation that will:
 - a. Minimize traffic hazards through appropriate street design, providing safe and convenient vehicular and pedestrian traffic circulation systems.
 - b. Provide adequate vehicular access to abutting properties.
 - c. Provide streets of adequate capacity and appropriate design and function.

Staff Finding: Centennial Avenue and S. 1st Street/CO Highway 79 provides adequate and appropriate access to the property. See discussion on traffic above.

4. To ensure adequate public facilities that will:
 - a. Provide for the recreational, cultural, educational and other public facility needs of the community.
 - b. Facilitate effective law enforcement and fire protection.

Staff Finding: Adequate public facilities are available to the property.

5. To contribute to the proper development of the community in accordance with the goals and policies of the Comprehensive Plan as it may be updated from time to time.

Staff Finding: The proposed plat is consistent with the principles in the 2021 Town of Bennett Comprehensive Plan including:

- A comprehensive, safe and efficient transportation system that provides for all forms of travel, including vehicular, bicycle, pedestrian and public transit.
- Develop neighborhoods that have a mix of land uses and densities with easy access to parks and open space, schools, cultural facilities, places of worship, shopping and employment.
- Contiguous land development pattern that promotes connected infrastructure and services in line with the capital asset inventory master planning documents.
- Both land and infrastructure development decisions will be predictable and provide equitable cost-sharing in line with the Town's master plans.

C. Compliance with Zoning Regulations

Staff Finding: The final plat is consistent with the C- General Commercial zone district. Future development will be subject to the lot standards in the zone district, including but not limited to building setbacks, building height, parking, landscaping and lighting.

Public Comment

Notice of the September 19, 2022 Planning and Zoning Commission meeting was published in the Eastern Colorado News, posted on the subject property and sent to all property owners within 300 feet of the property. No public comment has been received as of this date.

Staff Recommendation

Staff finds the proposed final plat is in compliance with the Subdivision Regulations in Chapter 16, Article IV of the Bennett Municipal Code. Staff also finds the plat has been processed according to Section 16-4-360 and meets the approval criteria in 16-4-380. Based upon these findings, Staff recommends the Planning and Zoning Commission adopt Resolution No. 2022-17 recommending to the Board of Trustees approval of Case No. 22.11 – Shops at Bennett Subdivision, Amendment No. 1 Final Plat, with the following conditions:

1. Approval of a subdivision agreement (SA) that identifies and guarantees public improvements, including but not limited to streets, sidewalks/trails, water, sanitary sewer, storm water management and undergrounding utilities prior to the issuance of an infrastructure permit.
2. Before recording the final plat, the applicant shall:
 - a. Update plat notes related to easements; maintenance and required site plan review;
 - b. Make other minor modifications as directed by Town Staff, the Town Engineer and Town Attorney

Attachments

1. Staff PowerPoint Presentation (PDF)
2. Land Use Application
3. Applicant's Letter of Intent
4. Proposed Final Plat
5. Traffic Impact Analysis
6. Combined Referral Agency Responses
7. Draft Resolution No. 2022-17

Case No. 22.11 Shops at Bennett Subdivision, Amendment No. 1

Town of Bennett
Planning and Zoning Commission

September 19, 2022
Steve Hebert, Planning Manager

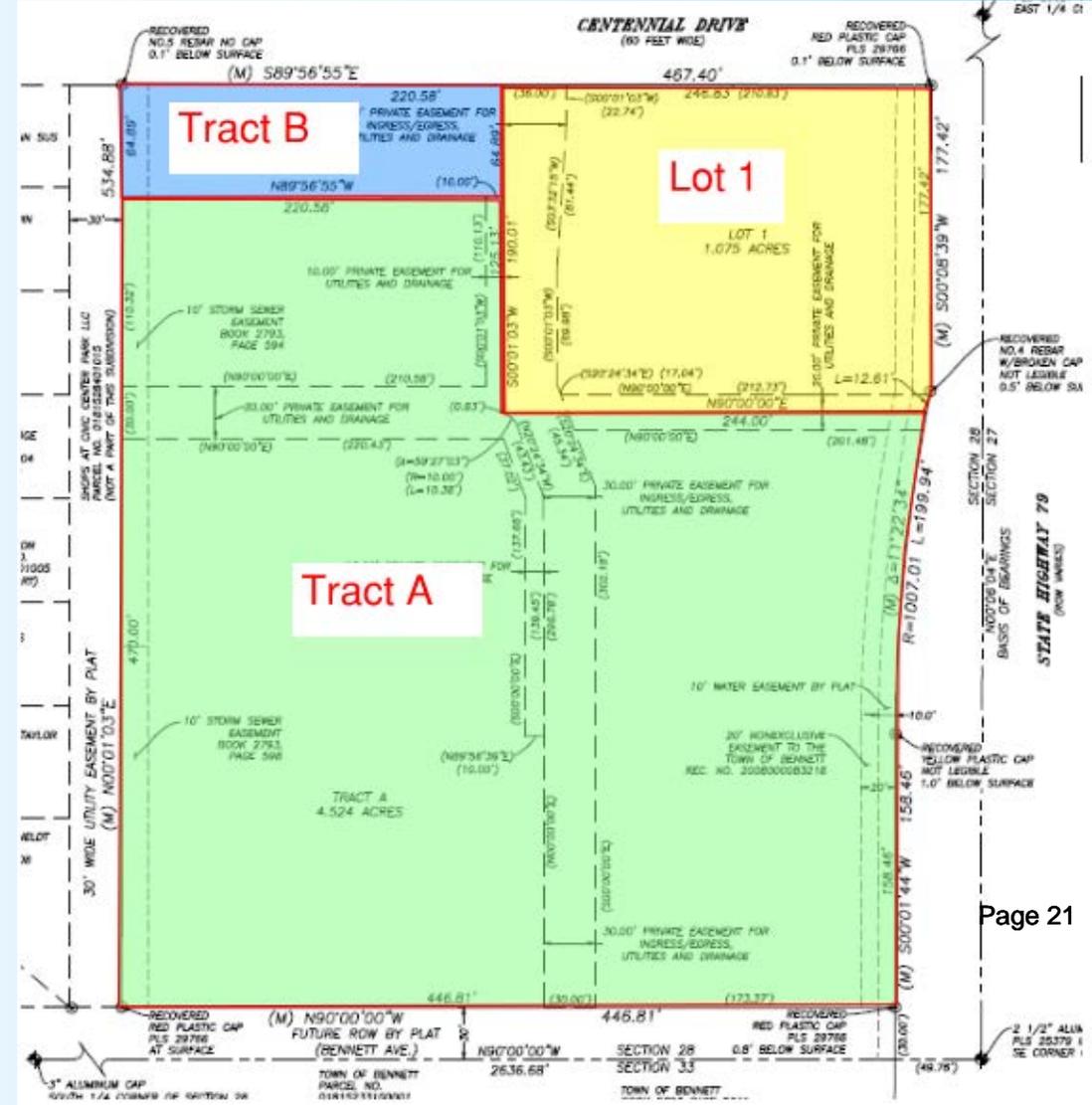


Shops at Bennett Subdivision Vicinity Map



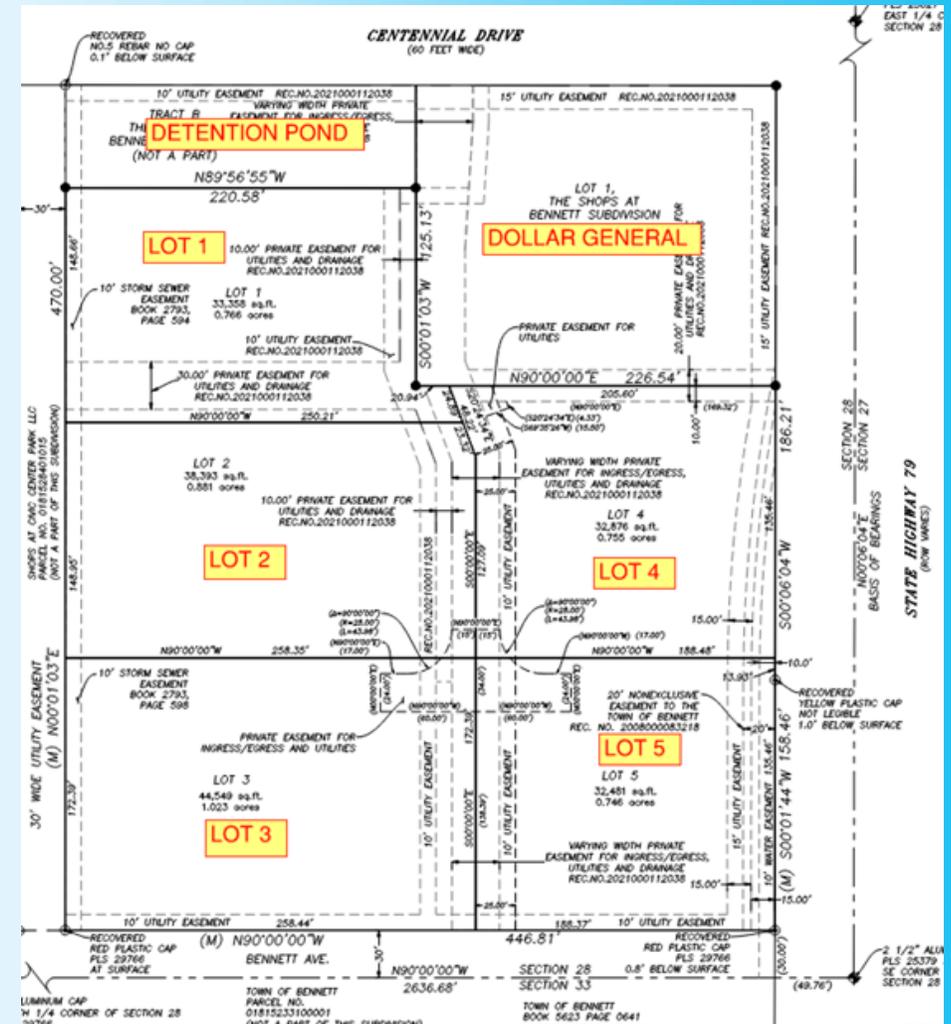
Original Shops at Bennett Subdivision

- Approved in August 2021
- 5.9 acres
- Zoned C – General Commercial District
- Created one buildable lot (Lot1), now Dollar General
- Created Tract A for future commercial subdivision
- Tract B for detention pond



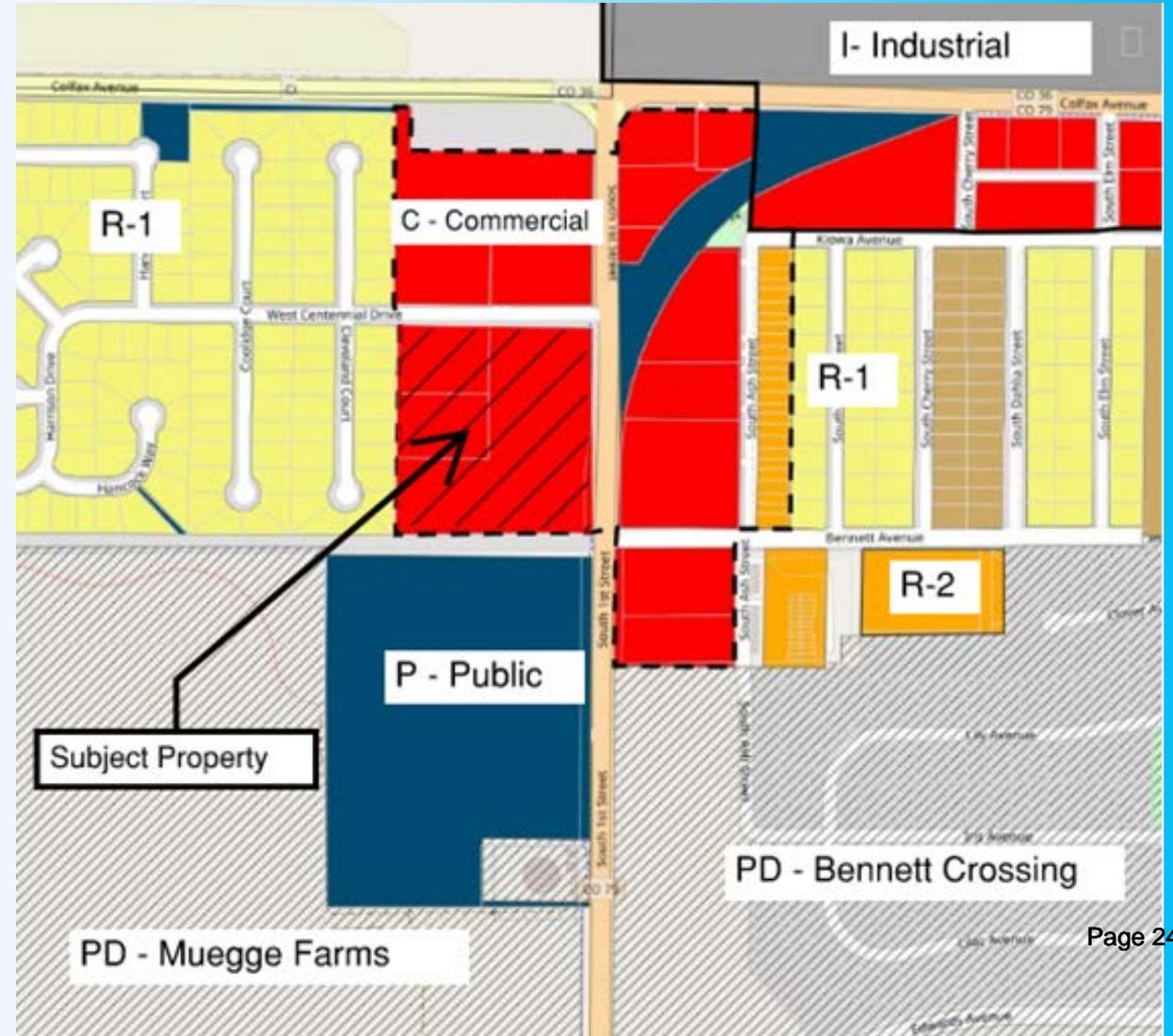
Shops at Bennett Subdivision, Amendment No. 1

- 4.17 acres
- Zoned C – General Commercial District
- Access via Centennial Ave, no direct access to 1st St./CO Highway 79
- Creates five commercial lots
- Various access and utility easements dedicated via plat



Zoning

- Current zoning is C - General Commercial District
- Within the Main Street Downtown overlay district, with additional design guidelines applied at time of site plan



Surrounding Zoning and Land Use

Direction	Adjacent Zone District	Land Use
North	C- General Commercial District	Dollar General, Bank and Vacant Lot
East	C- General Commercial District	Dollar General, Bank, Church, U.S. Post Office
South	P – Public District	Town Hall, County Shared Services Building, Veteran’s Memorial
West	R-1 - Low Density Residential District	Residential –Centennial Subdivision

Access and Traffic

Concept of Level of Service (LOS)

Table 1. Level of Service Criteria for Signalized Intersections

Level of Service	Average Control Delay (sec/veh)	General Description (Signalized Intersections)
A	≤10	Free Flow
B	>10 - 20	Stable Flow (slight delays)
C	>20 - 35	Stable flow (acceptable delays)
D	>35 - 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	>55 - 80	Unstable flow (intolerable delay)
F	>80	Forced flow (jammed)

Access and Traffic

Table 2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay (sec/veh)
A	0 - 10
B	>10 - 15
C	>15 - 25
D	>25 - 35
E	>35 - 50
F	>50

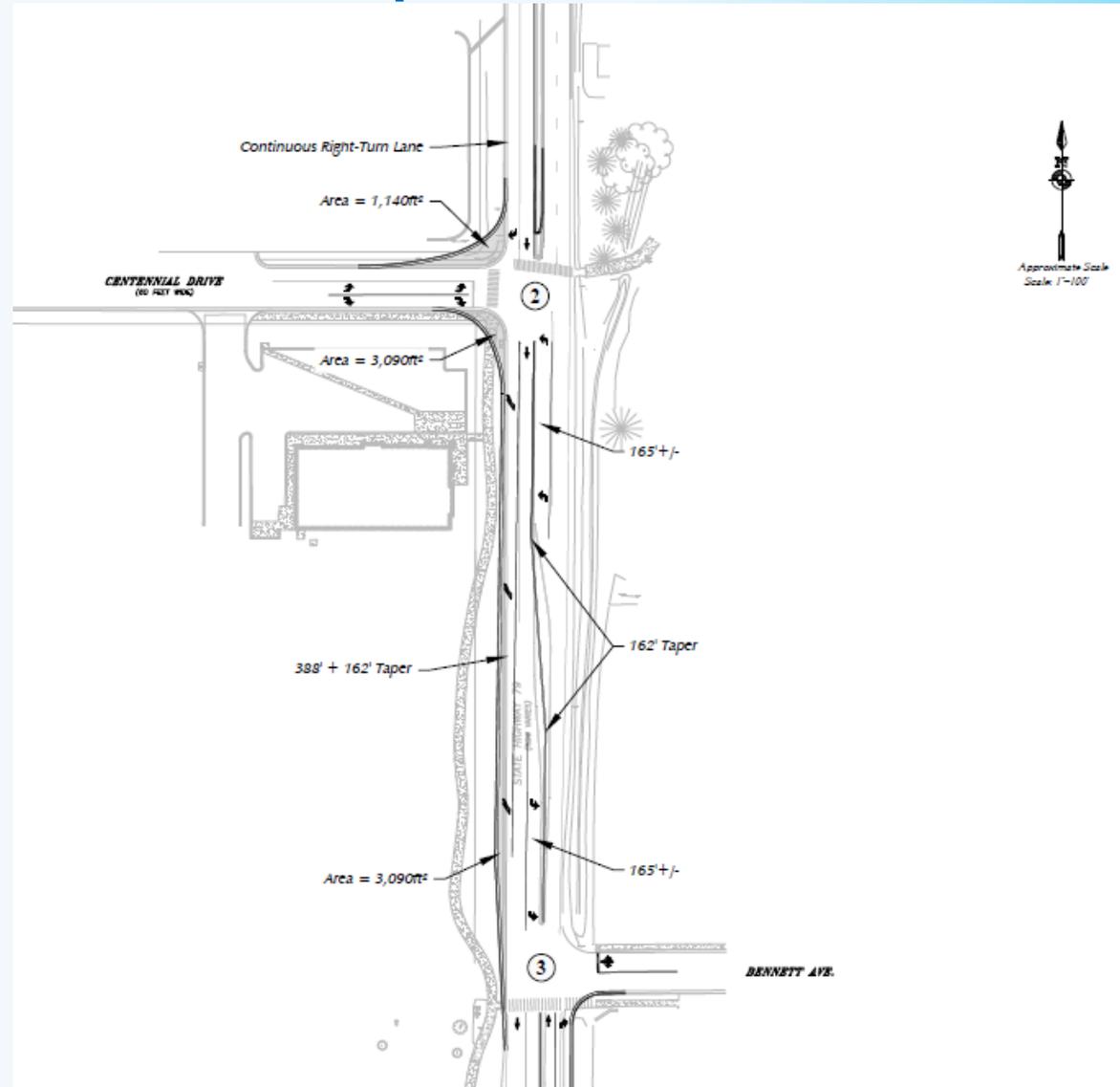
Access and Traffic

1. Applicant's Traffic Impact Analysis assessed Level of Service (LOS)
2. All movements operate at acceptable LOS (C or better) through 2042 with the exception of the eastbound left (EBL) turn from Centennial Drive north to CO Highway 79 which operates at LOS D in the PM peak hour in 2024. LOS D is considered acceptable LOS.
3. Once CO Highway 79 is realigned and traffic along this segment of the highway is reduced, that turning movement returns a LOS C.

Access and Traffic, Continued

4. Corner radii are shown to be increased, along with the SH 79 center median pulled back. This should allow for improved turning movements for larger vehicles (delivery trucks, bus, etc.)
5. A southbound acceleration lane is proposed on SH 79 to meet State Highway Access Code requirements. This should allow vehicles to reach adequate speeds, creating increased safety conditions for all users as they merge. This acceleration lane can be constructed with minor widening to SB SH 79 as part of the Shops development.

Future Street Improvements



Staff Findings on Case No. 22.11

Per Section 16-4-380 of the Bennett Municipal Code, the Town shall use the following criteria to evaluate the applicant's final plat application:

- No sketch plan required.
- All applicable technical standards in accordance with this Chapter and adopted Town documents will be met.
- The proposed lots will accommodate new development that meets the standards of good subdivision design.
- The proposed plat will accommodate extension of utilities and public services to serve future commercial development.
- No public facilities are anticipated as part of this subdivision. However, there will be a public land dedication requirement or cash-in-lieu.
- All development will meet the standards set forth in the C – General Commercial District and Main Street Overlay District.

Staff Recommendation

Staff recommends the Planning and Zoning Commission adopt Resolution No. 2022-17 recommending the Board of Trustees approve the Shops at Bennett Subdivision, Amendment No. 1 Final Plat, with the following conditions:

1. Approval of a subdivision agreement (SA) that identifies and guarantees public improvements, including but not limited to streets, sidewalks/trails, water, sanitary sewer, storm water management and undergrounding utilities prior to the issuance of an infrastructure permit.
2. Before recording the final plat, the applicant shall:
 - a. Update plat notes related to easements; maintenance and required site plan review;
 - b. Make other minor modifications as directed by Town Staff, the Town Engineer and Town Attorney

Town of Bennett Land Use Application Form

TO BE COMPLETED BY APPLICANT

Application Type:	<input type="checkbox"/> Annexation	<input type="checkbox"/> FDP	<input type="checkbox"/> Final Plat	<input type="checkbox"/> Variance
	<input type="checkbox"/> Zoning/Rezoning	<input type="checkbox"/> Site Plan	<input type="checkbox"/> Boundary Line Adjustment	<input type="checkbox"/> Sign Permit
	<input type="checkbox"/> ODP	<input type="checkbox"/> Sketch Plan	<input type="checkbox"/> Conditional Use Permit	<input type="checkbox"/> Other _____
Primary Contact Name: LISA PETERSON				
Name of Firm: HAMMERS CONSTRUCTION, INC.				
Address: 1411 Woodsey Hts.				
City: COLORADO SPRINGS	State: CO	Zip: 80915	Phone: 719-570-1599	
Email: lpeterson@hammersconstruction.com				
Owner Name: SHOPS AT CIVIC CENTER LLC				
Address: 965 S. 1st St. Unit 6F				
City: BENNETT	State: CO	Zip: 80102-8750	Phone:	
Email:				
Mineral Estate Holder/Lease: ANSCHUTZ FARMS CORPORATION				
Name of Firm:				
Address:				
City:	State:	Zip:	Phone:	
Parcel#: 01815-2840-1011, 01815-2840-1013 01815-2840-1014, 01815-2840-1015				
Subdivision Name: THE CENTENNIAL ADD				
Site Address: S 1ST & CENTENNIAL DRNE				
Nearest Major Intersection: SW CORNER OF S 1ST & CENTENNIAL DRIVE				
Legal Description: CENTENNIAL ADD THE DESC: OUTLOT B EXC NLY 325/94 FT OF WLY 235/88 FT				
Current Zoning: GENERAL COMMERCIAL DISTRICT		Proposed # lots/units: 5 LOTS / 1 TRACT		
Total Acreage: 4.170		Gross Floor Area: N/A		
Proposed Gross Densities (du/ac):				
Additional Notes:				

All Submittal Requirements must accompany this application. All applicable fees must be paid at the time of application. Any extraordinary cost incurred by the Town of Bennett in reviewing and processing this application is the responsibility of the applicant.

An executed cost agreement must be attached to this application pursuant to Sec. 16-1-325 of the Bennett Municipal Code.

I understand this is an application only, it must be approved by the Town, and any required building permits must be obtained before the property can be used in accordance with the request. I hereby acknowledge all of the above information is correct.

Applicant's Signature:  Date: 2-16-22



HAMMERS CONSTRUCTION, INC.

1411 Woolsey Heights • Colorado Springs, Colorado 80915-5400
(719) 570-1599 • FAX (719) 570-7008 • www.hammersconstruction.com

• SPECIALIZING IN DESIGN / BUILD •

Steve Hammers, President
shammers@hammersconstruction.com

Letter of Intent

Final Plat

Owner Information

Shop at Civic Center LLC

965 S 1st St. Unit 6F

Bennett, CO 80102-8750

Project Name: Shops at Bennett

Owner Representatives

Hammers Construction, Inc.

Joe Butler – Project Manager

Lisa Peterson – Design (Applicant)

1411 Woolsey Heights

Colorado Springs, CO 80915

(719) 570-1599

Site:

S. 1st and Centennial Drive

Bennett, CO 80102-8750

Lot Size: 4.170 Acres

Zoned: General Commercial District

Parcel numbers: 01815-2840-1011, 01815-2840-1013, 01815-2840-1014

Description

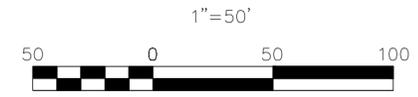
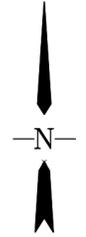
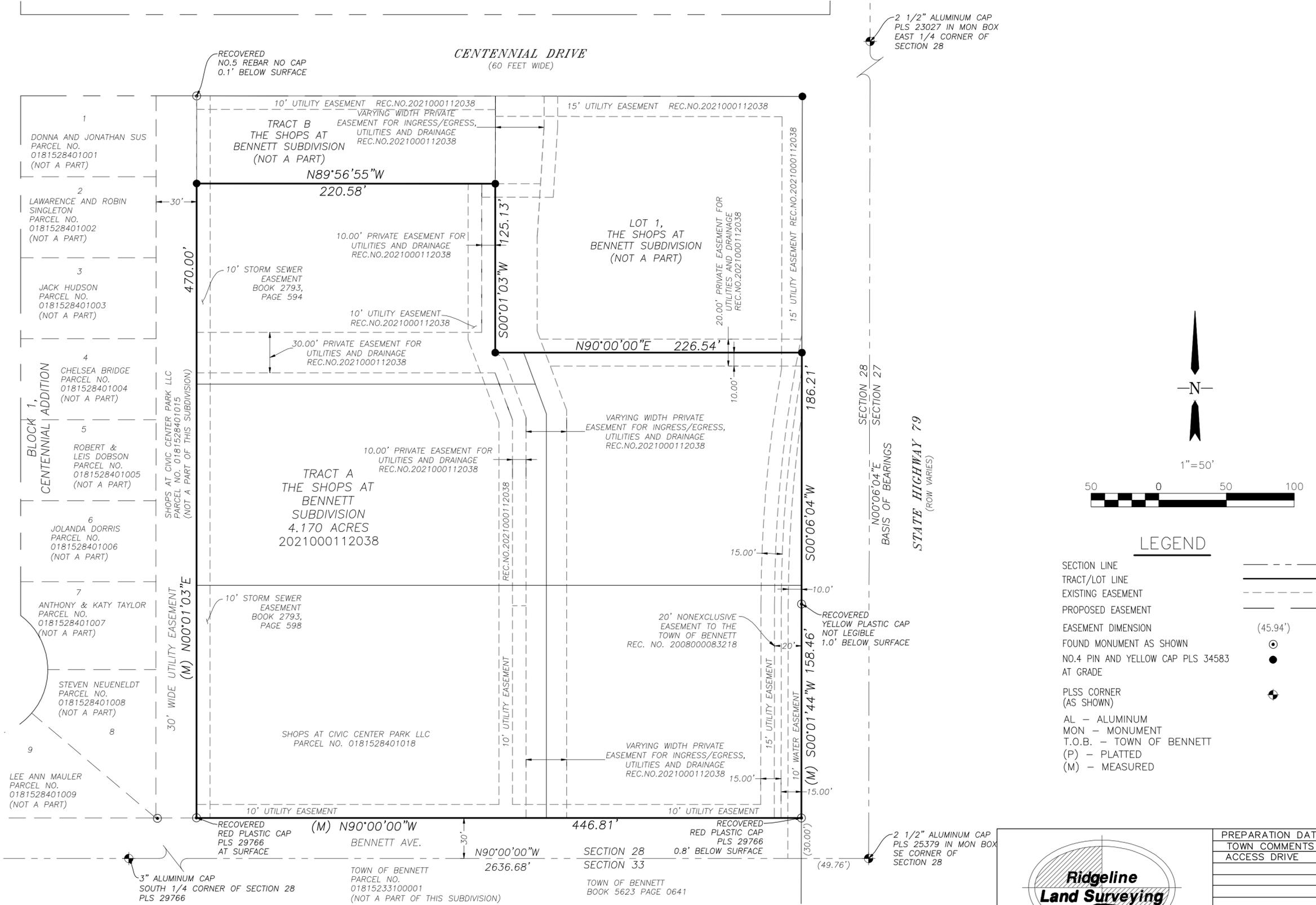
Request approval to plat five Lots and one Tract. We are proposing to install a portion of the roadway & utility infrastructure at this time. The five lots will be developed for future retail or like uses. Tract A will be reserved for the continuation of Bennett Ave.

Justification

This land is currently vacant. The proposed Lots will be developed for more retail space or like uses, which is an approved use within this zone district.

THE SHOPS AT BENNETT SUBDIVISION, AMENDMENT NO.1

A REPLAT OF TRACT A, THE SHOPS AT BENNETT SUBDIVISION,
A PART OF THE SE 1/4 OF SECTION 28, TOWNSHIP 3 SOUTH, RANGE 63 WEST
OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF BENNETT,
COUNTY OF ADAMS, STATE OF COLORADO
SHEET 2 OF 3



LEGEND

- SECTION LINE
- TRACT/LOT LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EASEMENT DIMENSION (45.94')
- FOUND MONUMENT AS SHOWN
- NO.4 PIN AND YELLOW CAP PLS 34583 AT GRADE
- PLSS CORNER (AS SHOWN)
- AL - ALUMINUM
- MON - MONUMENT
- T.O.B. - TOWN OF BENNETT
- (P) - PLATTED
- (M) - MEASURED

**Ridgeline
Land Surveying**

4345 BEVERLY STREET, UNIT C
COLORADO SPRINGS, CO 80918
TEL: 719.238.2917

PREPARATION DATE	1/1/2022
TOWN COMMENTS	4/5/2022
ACCESS DRIVE	9/8/2022

AS PLATTED

THE SHOPS AT BENNETT SUBDIVISION, AMENDMENT NO.1

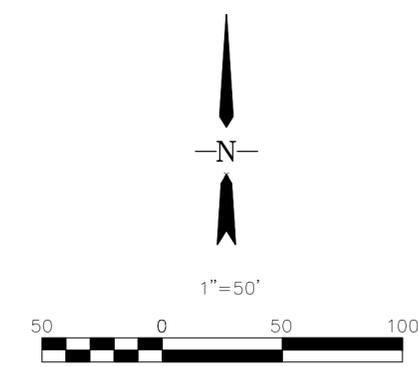
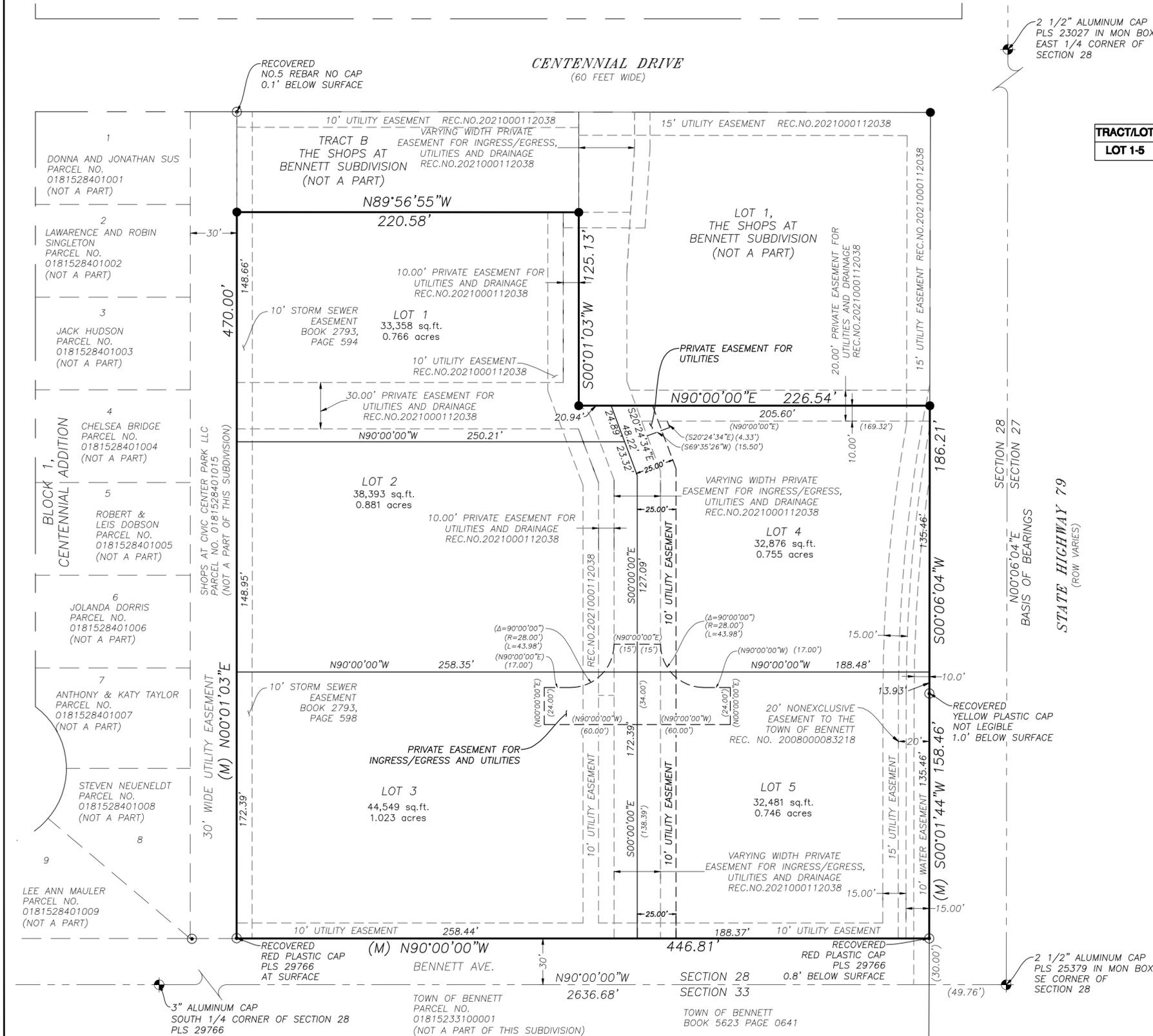
A REPLAT OF TRACT A, THE SHOPS AT BENNETT SUBDIVISION,
 A PART OF THE SE 1/4 OF SECTION 28, TOWNSHIP 3 SOUTH, RANGE 63 WEST
 OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF BENNETT,
 COUNTY OF ADAMS, STATE OF COLORADO
 SHEET 3 OF 3

LAND USE TABLE

GROSS ACREAGE	4.170
NUMBER OF LOTS / ACREAGE	5/4.170
NET ACREAGE FOR PUBLIC STREETS	0
NET ACREAGE FOR PRIVATE USE	4.170

TRACT OWNERSHIP AND MAINTENANCE

TRACT/LOT	PROPOSED USE	OWNERSHIP	MAINTENANCE
LOT 1-5	FUTURE DEVELOPMENT	SHOPS AT CIVIC CENTER PARK LLC	OWNER OR ASSIGNS



LEGEND

SECTION LINE	---
TRACT/LOT LINE	---
EXISTING EASEMENT	---
PROPOSED EASEMENT	---
EASEMENT DIMENSION	(45.94')
FOUND MONUMENT AS SHOWN	⊙
NO.4 PIN AND YELLOW CAP PLS 34583 AT GRADE	●
PLSS CORNER (AS SHOWN)	⊕
AL - ALUMINUM	
MON - MONUMENT	
T.O.B. - TOWN OF BENNETT	
(P) - PLATTED	
(M) - MEASURED	

**Ridgeline
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4345 BEVERLY STREET, UNIT C
 COLORADO SPRINGS, CO 80918
 TEL: 719.238.2917

PREPARATION DATE	1/1/2022
TOWN COMMENTS	4/5/2022
ACCESS DRIVE	9/8/2022

AS REPLATTED

1889 York Street
Denver, CO 80206
(303) 333-1105
FAX (303) 333-1107
E-mail: lsc@lscdenver.com



September 9, 2022

Mr. Joe Butler
Hammers Construction
1411 Woolsey Heights
Colorado Springs, CO 80915

Re: Shops at Bennett Square
Bennett, CO
LSC #211180

Dear Mr. Butler:

In response to your request, LSC Transportation Consultants, Inc. has prepared this updated Traffic Impact Analysis for the proposed Shops at Bennett Square development to address Town comments. As shown on Figure 1, the site is located west of 1st Street (SH 79) and south of Centennial Drive in Bennett, Colorado.

REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; an adjustment of the existing traffic for the ongoing pandemic; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate the site's traffic impacts.

LAND USE AND ACCESS

The site is proposed to include a variety store with about 9,450 square feet, about 14,400 square feet of strip retail; a tire store with about 6,547 square feet; a medical office building with about 5,000 square feet; and a veterinary clinic with about 4,176 feet. Full movement access is proposed to Centennial Drive as shown in the conceptual site plan in Figure 2.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **1st Street (SH 79)** is a north-south, two-lane state highway east of the site. It is classified by CDOT as NR-B (non-rural highway). The CDOT straight line diagram is attached. The intersections with E. Colfax Avenue (US 36), Centennial Drive, and Bennett Avenue are stop-sign controlled. The posted speed limit in the vicinity of the site is 35 mph but transitions to 45 mph just to the south. The existing SH 79 alignment is expected to be shifted to the east by 2042 per the preferred realignment from the *SH 79 and Kiowa-Bennett Corridor PEL Study* by CDOT.
- **Centennial Drive** is an east-west, two-lane local roadway north of the site. The intersection with 1st Street (SH 79) is stop-sign controlled. The posted speed limit in the vicinity of the site is 25 mph.
- **Bennett Avenue** is an east-west, two-lane local roadway east of the site. The intersection with 1st Street (SH 79) is stop-sign controlled.

Existing Traffic Conditions

Figure 3a shows the existing lane geometries, traffic controls, posted speed limits, and traffic volumes in the site's vicinity on a typical weekday. The weekday peak-hour traffic volumes and daily traffic counts are from the attached traffic counts conducted by Counter Measures in June, 2021.

Adjustment for the Ongoing Pandemic

Figure 3b shows the existing traffic volumes adjusted for the ongoing pandemic. The traffic volumes at the 1st Street (SH 79)/Bennett Avenue intersection are based on Figure 3b of the 2020 *Worthman Acres TIA* by LSC with the through traffic volumes grown for one year at 3.7 percent based on the CDOT 20-year factor of 2.07. The side road volumes assumed little or no growth. The east/west volumes at the 1st Street (SH 79)/E. Colfax Avenue intersection are based on the higher of the traffic counts in Figure 3a and the 2017 traffic count from Figure 3 of the 2019 *Muegge Farms TIA* by LSC grown for four years at an annual growth rate of three percent. The volumes to/from the south were balanced with the other two intersections. These volumes are consistent with Figure 3b of the 2021 *Dollar General TIA* by LSC.

2024 and 2042 Background Traffic

Figure 4 shows the estimated 2024 background traffic which assumes three years of growth at 3.7 percent on SH 79 based on the CDOT 20-year factor of 2.07. It also assumes three years of growth at a rate of 3.0 percent on US 36. Bennett Avenue assumes additional trips from a portion of the 300 Bennett and Worthman Acres buildout.

Figure 5 shows the estimated 2042 background traffic which assumes 18 years of growth at an annual rate of 3.0 percent on US 36 and buildout of the 300 Bennett and Worthman Acres developments. The volumes on the east leg on Intersection #3 are consistent with those in the 2020 *Worthman Acres TIA* by LSC (Figure 9). It also assumes the volumes to/from the east leg of Intersection #1 are consistent with the volumes in the 2020 *Worthman Acres TIA* by LSC (Figure 9).

Figures 4 and 5 also show the estimated 2024 and 2042 background traffic control and lane geometry, respectively.

Existing, 2024, and 2042 Background Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from “A” to “F.” LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for unsignalized intersections.

The intersections in Figures 3b, 4, and 5 were analyzed to determine the existing, 2024, and 2042 background levels of service using Synchro. Table 1 shows the level of service analysis results. The level of service reports are attached.

- 1. 1st Street (SH 79)/E. Colfax Avenue (US 36):** All movements at this unsignalized intersection currently operate at LOS “C” or better during both morning and afternoon peak-hours and are expected to do so through 2042.
- 2. 1st Street (SH 79)/Centennial Drive:** All movements at this unsignalized intersection currently operate at LOS “C” or better during both morning and afternoon peak-hours and are expected to do so through 2042.
- 3. 1st Street (SH 79)/Bennett Avenue:** All movements at this unsignalized intersection currently operate at LOS “C” or better during both morning and afternoon peak-hours and are expected to do so through 2042.
- 4. Centennial Drive/Site Access/Bank Access:** All movements at this unsignalized intersection currently operate at LOS “A” during both morning and afternoon peak-hours and are expected to do so through 2042.

TRIP GENERATION

Table 2 shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed site based on the rates from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE).

The site is projected to generate about 1,837 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 69 vehicles would enter and about 41 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:00 p.m., about 103 vehicles would enter and about 116 vehicles would exit. These estimates include passby trips as shown in Table 2.

TRIP DISTRIBUTION

Figure 6 shows the estimated directional distribution of the site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; and the site’s proposed land use.

TRIP ASSIGNMENT

Figure 7a shows the estimated primary site-generated traffic volumes based on the directional distribution percentages (from Figure 6) and the trip generation estimate (from Table 2).

Figure 7b shows the estimated passby site-generated traffic volumes.

2024 AND 2042 TOTAL TRAFFIC

Figure 8 shows the estimated 2024 total traffic which is the sum of the 2024 background traffic volumes (from Figure 4) and the site-generated traffic volumes (from Figures 7a and 7b). Figure 8 also shows the recommended 2024 lane geometry and traffic control.

Figure 9 shows the estimated 2042 total traffic which is the sum of the 2042 background traffic volumes (from Figure 5) and the site-generated traffic volumes (from Figures 7a and 7b). Figure 9 also shows the recommended 2042 lane geometry and traffic control.

The conceptual improvements along 1st Street (SH 79) are shown in Figure 10.

PROJECTED LEVELS OF SERVICE

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from “A” to “F.” LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for unsignalized intersections.

The intersections in Figures 8 and 9 were analyzed to determine the 2024 and 2042 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

- 1. 1st Street (SH 79)/Colfax Avenue (US 36):** All movements at this unsignalized intersection are expected to operate at LOS “C” or better during both morning and afternoon peak-hours through 2042.
- 2. 1st Street (SH 79)/Centennial Drive:** All movements at this unsignalized intersection are expected to operate at LOS “D” or better during both morning and afternoon peak-hours through 2042.
- 3. 1st Street (SH 79)/Bennett Avenue:** All movements at this unsignalized intersection are expected to operate at LOS “C” or better during both morning and afternoon peak-hours through 2042.
- 4. Centennial Drive/Site Access/Bank Access:** All movements at this unsignalized intersection are expected to operate at LOS “B” or better during both morning and afternoon peak-hours through 2042.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

- 1. The site is projected to generate about 1,837 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, about 69 vehicles would enter and about 41 vehicles would exit the site. During the afternoon peak-hour, about 103 vehicles would enter and about 116 vehicles would exit. These estimates include passby trips as shown in Table 2.

Projected Levels of Service

- 2. All movements at the intersections analyzed are expected to operate at LOS "D" or better during both morning and afternoon peak-hours through 2042.

Conclusions

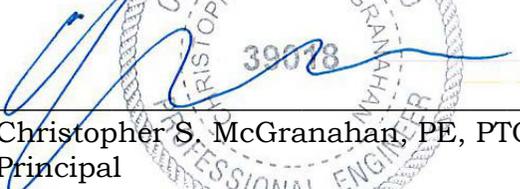
- 3. The impact of the Shops at Bennett Square development can be accommodated by the existing roadway network with the recommended improvements shown in Figure 10.

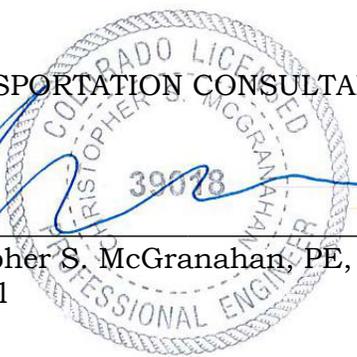
* * * * *

We trust our findings will assist you in gaining approval of the proposed Shops at Bennett Square development. Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By  _____
 Christopher S. McGranahan, PE, PTOE
 Principal



CSM/wc

9-9-22

- Enclosures: Tables 1 and 2
 Figures 1 - 10
 SH 79 Straight Line Diagram
 Traffic Count Reports
 Figures 3b and 9 from 2020 *Worthman Acres TIA* by LSC
 Figure 3 from 2019 *Muegge Farms TIA* by LSC
 Figure 3b from 2021 *Dollar General TIA* by LSC
 Level of Service Definitions
 Level of Service Reports

**Table 1
Intersection Levels of Service Analysis
Shops at Bennett Square
Bennett, CO
LSC #211180; September, 2022**

Intersection Location	Traffic Control	Existing Traffic		2024 Background Traffic		2024 Total Traffic		2042 Background Traffic		2042 Total Traffic	
		Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service	Level of Service
		AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1) <u>S. 1st Street (SH 79)/E. Colfax Avenue (US 36)</u>	TWSC										
NB Left		C	C	C	C	C	C	B	C	C	C
NB Right		A	A	A	A	A	A	A	A	A	A
WB Left		A	A	A	A	A	A	A	A	A	A
Critical Movement Delay		16.2	17.6	17.9	19.8	18.9	22.3	14.4	16.8	15.1	18.7
2) <u>S. 1st Street (SH 79)/Centennial Drive</u>	TWSC										
NB Left		A	A	A	A	A	A	A	A	A	A
EB Left		B	C	B	C	C	D	B	C	B	C
EB Right		B	B	B	B	B	B	A	A	A	B
Critical Movement Delay		12.9	17.1	13.8	18.8	15.7	27.1	12.2	15.4	13.6	20.5
3) <u>S. 1st Street (SH 79)/Bennett Avenue</u>	TWSC										
WB Approach		B	C	C	C	C	C	B	C	B	C
SB Left		A	A	A	A	A	A	A	A	A	A
Critical Movement Delay		13.7	16.4	15.3	19.1	15.5	20.8	13.1	15.1	13.8	17.4
4) <u>Centennial Drive/Site Access/Bank Access</u>	TWSC										
NB Approach		--	--	--	--	A	A	A	A	A	A
EB Approach		A	A	A	A	A	A	A	A	A	A
WB Approach		--	--	--	--	A	A	A	A	A	A
SB Approach		A	A	A	A	B	B	A	A	B	B
Critical Movement Delay		9.0	9.4	9.0	9.4	10.3	13.0	9.2	9.9	10.7	13.8

Table 2
ESTIMATED TRAFFIC GENERATION
Shops at Bennett Square
Bennett, CO
LSC #211180; September, 2022

Trip Generating Category	Quantity	Trip Generation Rates ⁽¹⁾					Total Trips Generated				
		Average Weekday	AM Peak-Hour In	AM Peak-Hour Out	PM Peak-Hour In	PM Peak-Hour Out	Average Weekday	AM Peak-Hour In	AM Peak-Hour Out	PM Peak-Hour In	PM Peak-Hour Out
PREVIOUSLY PROPOSED LAND USE											
Lot 1 - Previously studied (July 29, 2021 Dollar General TIA by LSC)											
Dollar General ⁽²⁾	9.450 KSF ⁽³⁾	63.66	1.672	1.368	3.417	3.283	602	16	13	32	31
CURRENTLY PROPOSED LAND USE											
Lot 2											
Strip Retail ⁽⁴⁾	8.400 KSF	54.45	1.416	0.944	3.295	3.295	457	12	8	28	28
Lot 3											
Medical Office ⁽⁵⁾	5.000 KSF	36.00	2.449	0.651	1.179	2.751	180	12	3	6	14
Lot 4											
Tire Store ⁽⁶⁾	6.547 KSF	27.69	1.670	0.940	1.613	2.138	181	11	6	11	14
Lot 5											
Veterinary Clinic ⁽⁷⁾	4.176 KSF	21.50	2.439	1.201	1.412	2.118	90	10	5	6	9
Lot 6											
Strip Retail ⁽⁴⁾	6.000 KSF	54.45	1.416	0.944	3.295	3.295	327	8	6	20	20
Total =							1,837	69	41	103	116
Passby Trips ⁽⁸⁾ =							267	6	6	16	16
Primary Trips =							1,570	63	35	87	100

Notes:

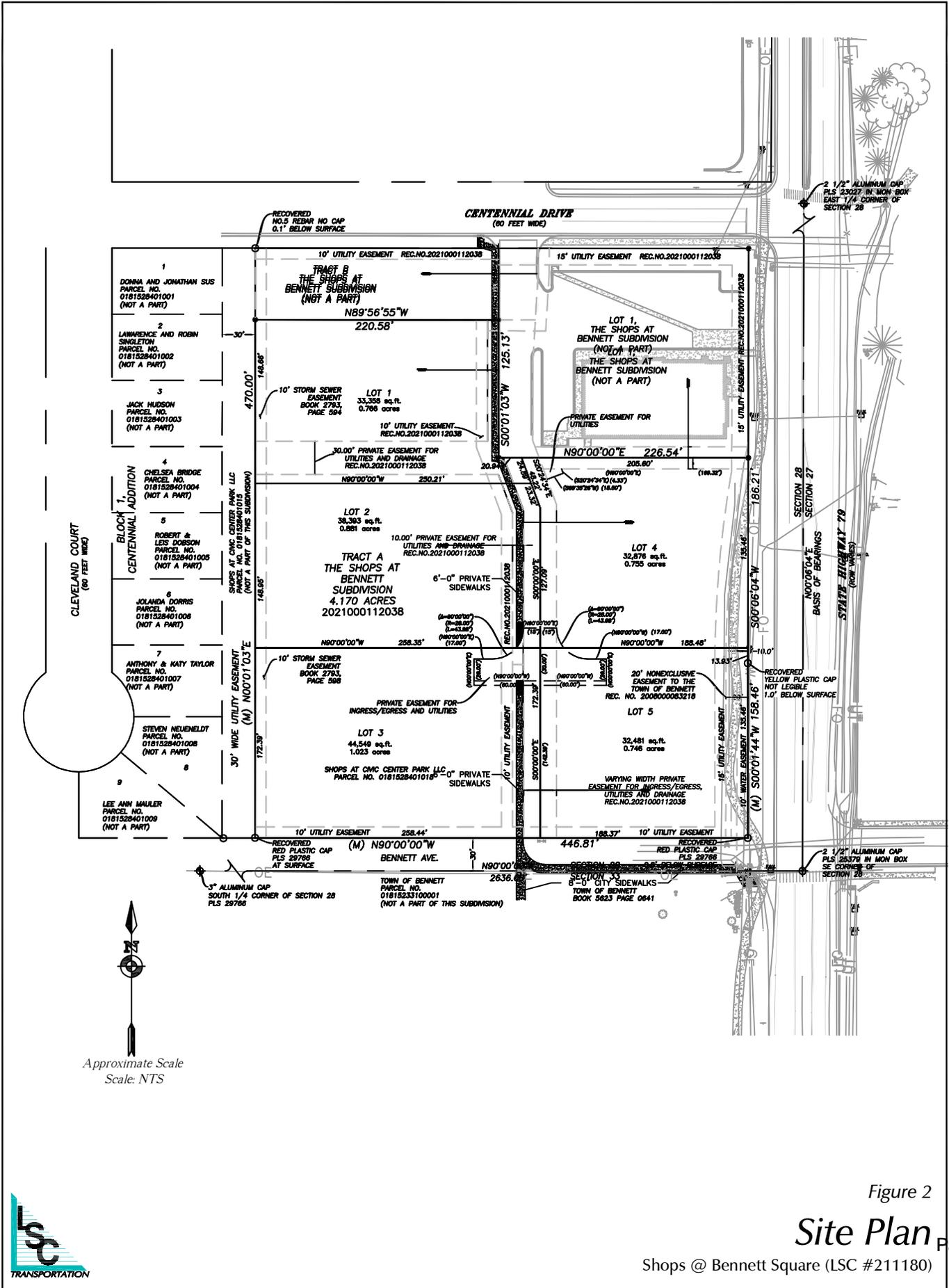
- (1) Source: *Trip Generation*, Institute of Transportation Engineers, 11th Edition, 2021.
- (2) ITE Land Use No. 814 - Variety Store
- (3) KSF = 1,000 square feet
- (4) ITE Land Use No. 822 - Strip Retail Plaza (< 40K)
- (5) ITE Land Use No. 720 - Medical/Dental Office Building
- (6) ITE Land Use No. 848 - Tire Store
- (7) ITE Land Use No. 640 - Animal Hospital/Veterinary Clinic
- (8) Passby trips are expected to comprise about 34% of retail trips per the *Trip Generation Handbook*, 3rd Edition

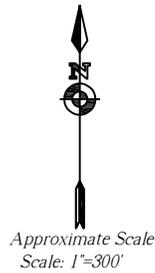


Figure 1

Vicinity Map

Shops @ Bennett Square (LSC #211180)





Note: Existing lane geometry was field verified.

LEGEND:

-  = Stop Sign
-  = Speed Limit
- $\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
- 1,000 = Average Daily Traffic

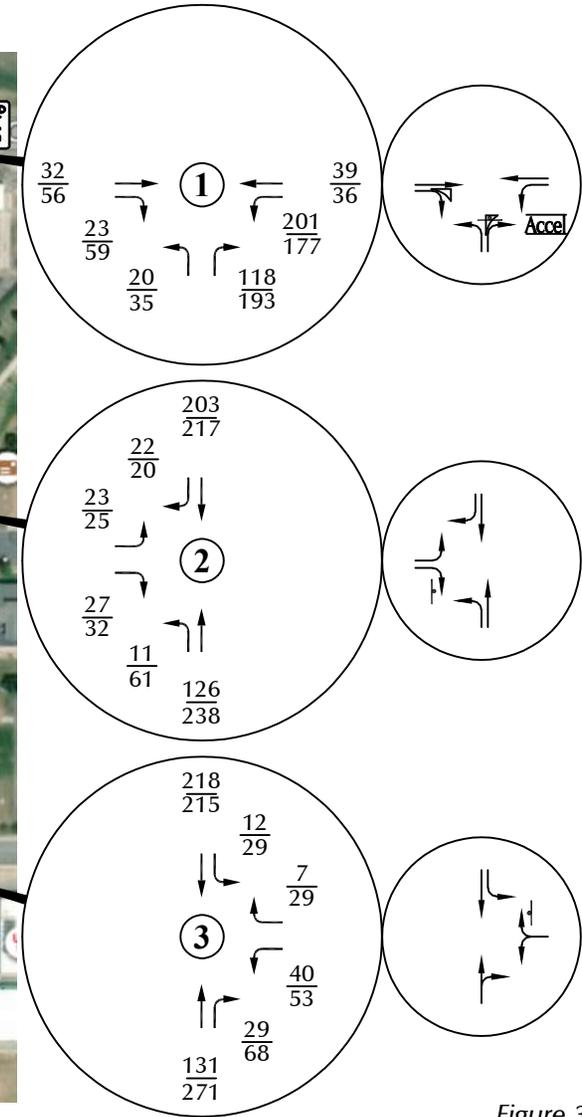
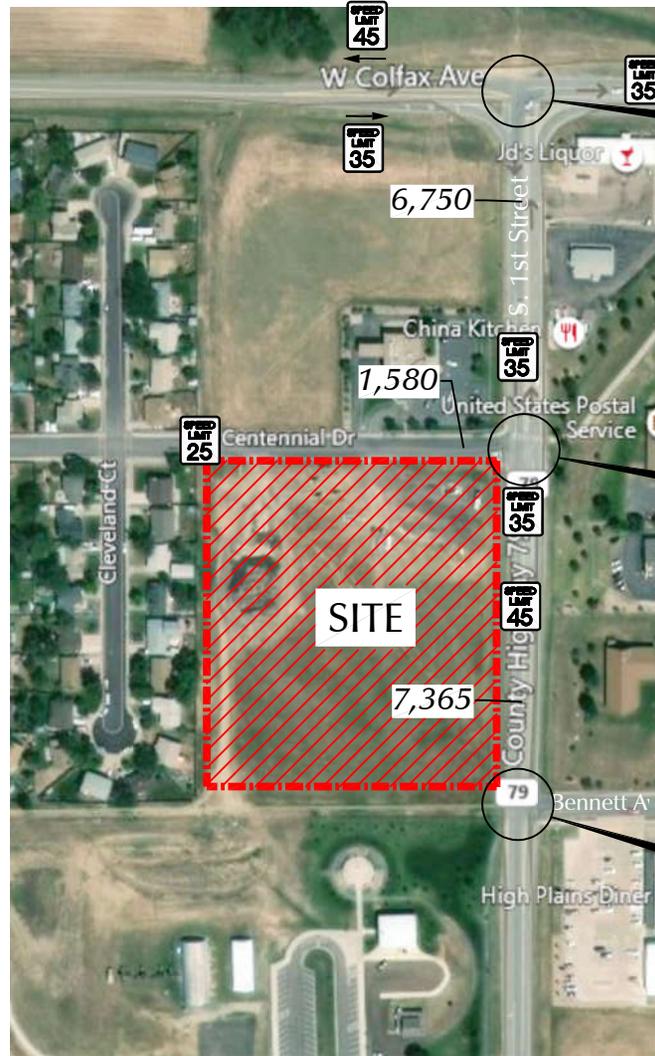
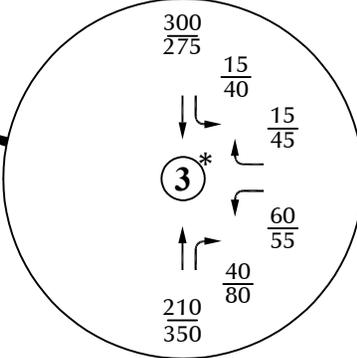
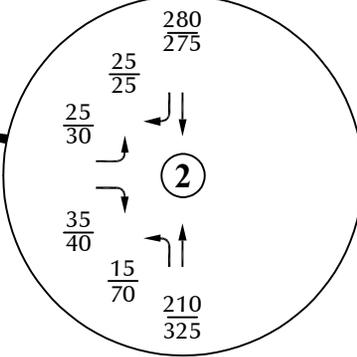
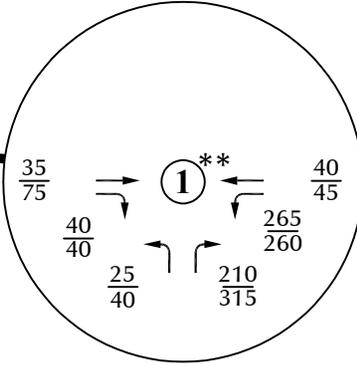
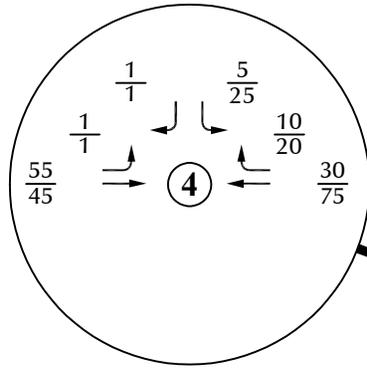
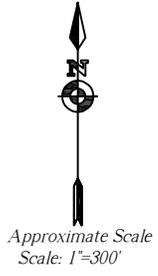


Figure 3a
**Existing June, 2021 Traffic,
 Lane Geometry and Traffic Control**

Shops @ Bennett Square (LSC #211180)



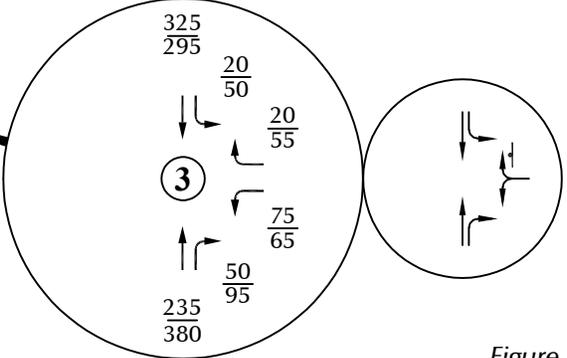
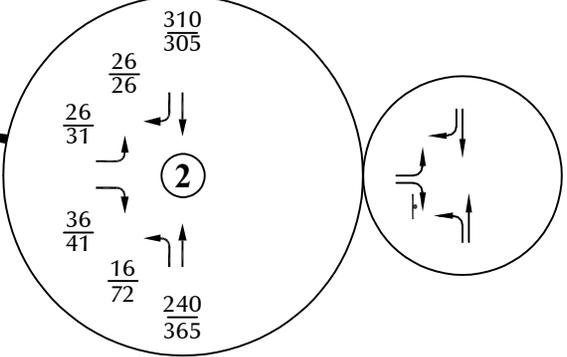
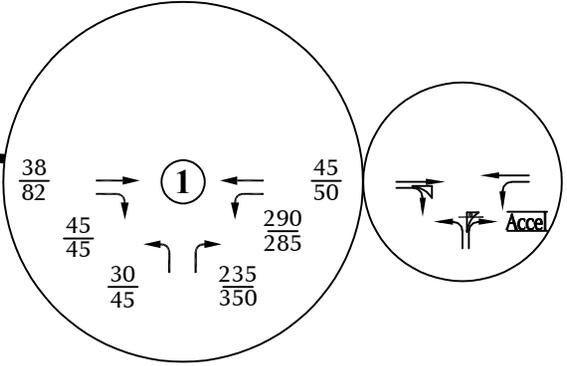
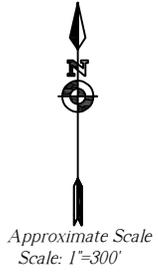
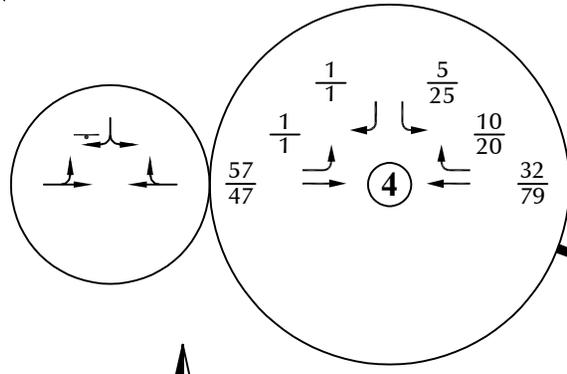
Note: These volumes are consistent with Figure 3b of the 2021 Dollar General TIA by LSC.

* Based on Figure 3b of the 2020 Worthman Acres TIA by LSC with the through traffic volumes grown for one year at 3.7 percent based on CDOT 20-year factor of 2.07. Side road volumes assumed little or no growth.
 ** East/west volumes based on the higher of the counts in Figure 3a and the 2017 count from Figure 3 of the Muegge Farms TIA by LSC grown for four years at annual rate of three percent. Volumes to/from the south were balanced with the other two intersections.

LEGEND:

$\frac{26}{35}$ = AM Peak Hour Traffic / PM Peak Hour Traffic
 1,000 = Average Daily Traffic

Figure 3b
**Existing Traffic,
 Adjusted for Pandemic**
 Shops @ Bennett Square (LSC #211180)

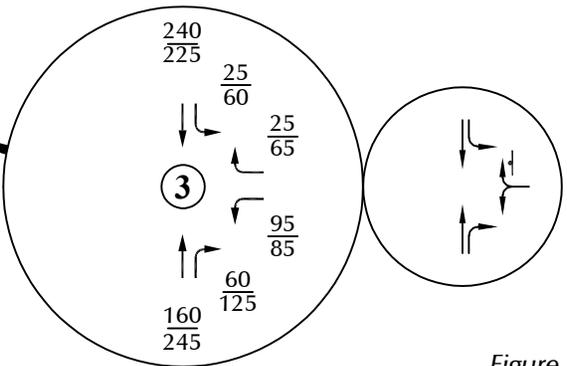
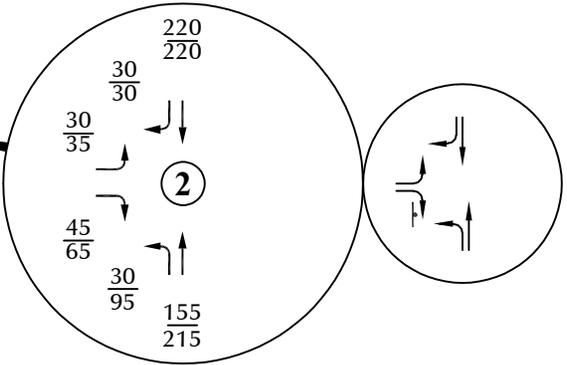
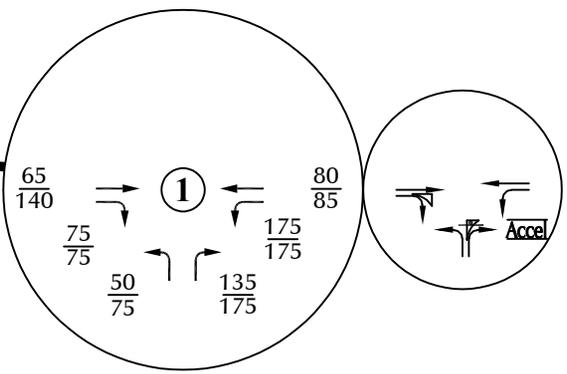
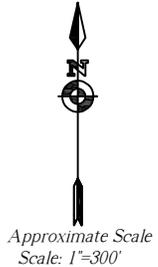
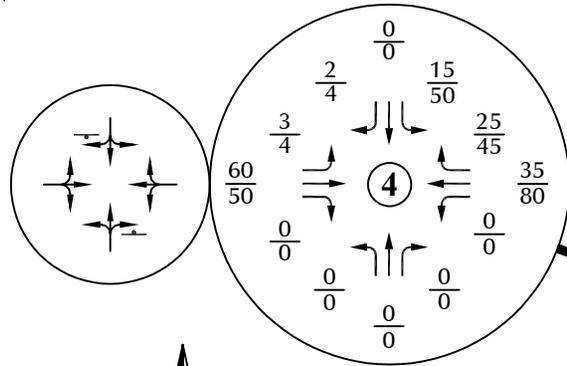


- Notes:
1. Assumes three years of growth on SH 79 at 3.7 percent based on CDOT 20-year factor of 2.07.
 2. Assumes three years of growth on US 36 at an annual rate of 3 percent.
 3. Bennett Avenue assumes additional trips from a portion of 300 Bennett and Worthman Acres buildout.
 4. Assumes three years of growth on Centennial Drive at an annual rate of one percent.

LEGEND:

- ⊥ = Stop Sign
- $\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
- 1,000 = Average Daily Traffic

Figure 4
Year 2024 Background Traffic, Lane Geometry and Traffic Control
Shops @ Bennett Square (LSC #211180)



- Notes:
1. Assumes 18 years of growth from 2024 at three percent annual rate for US 36.
 2. The volumes on the east leg of Intersection #3 are consistent with those in the 2020 Worthman Acres TIA by LSC (Figure 9).
 3. Assumes the volumes to/from the east leg of Intersection #1 are consistent with the volumes in the 2020 Worthman Acres TIA by LSC (Figure 9).
 4. The volumes on S. 1st Street are expected to be lower in 2042 than in 2024 because SH 79 is expected to shift to the east by 2042 which will cause S. 1st Street to revert back to a town street.

LEGEND:

- ⊥ = Stop Sign
- $\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
- 1,000 = Average Daily Traffic

Figure 5
Year 2042 Background Traffic, Lane Geometry and Traffic Control
Shops @ Bennett Square (LSC #211180)

Approximate Scale
Scale: 1"=300'

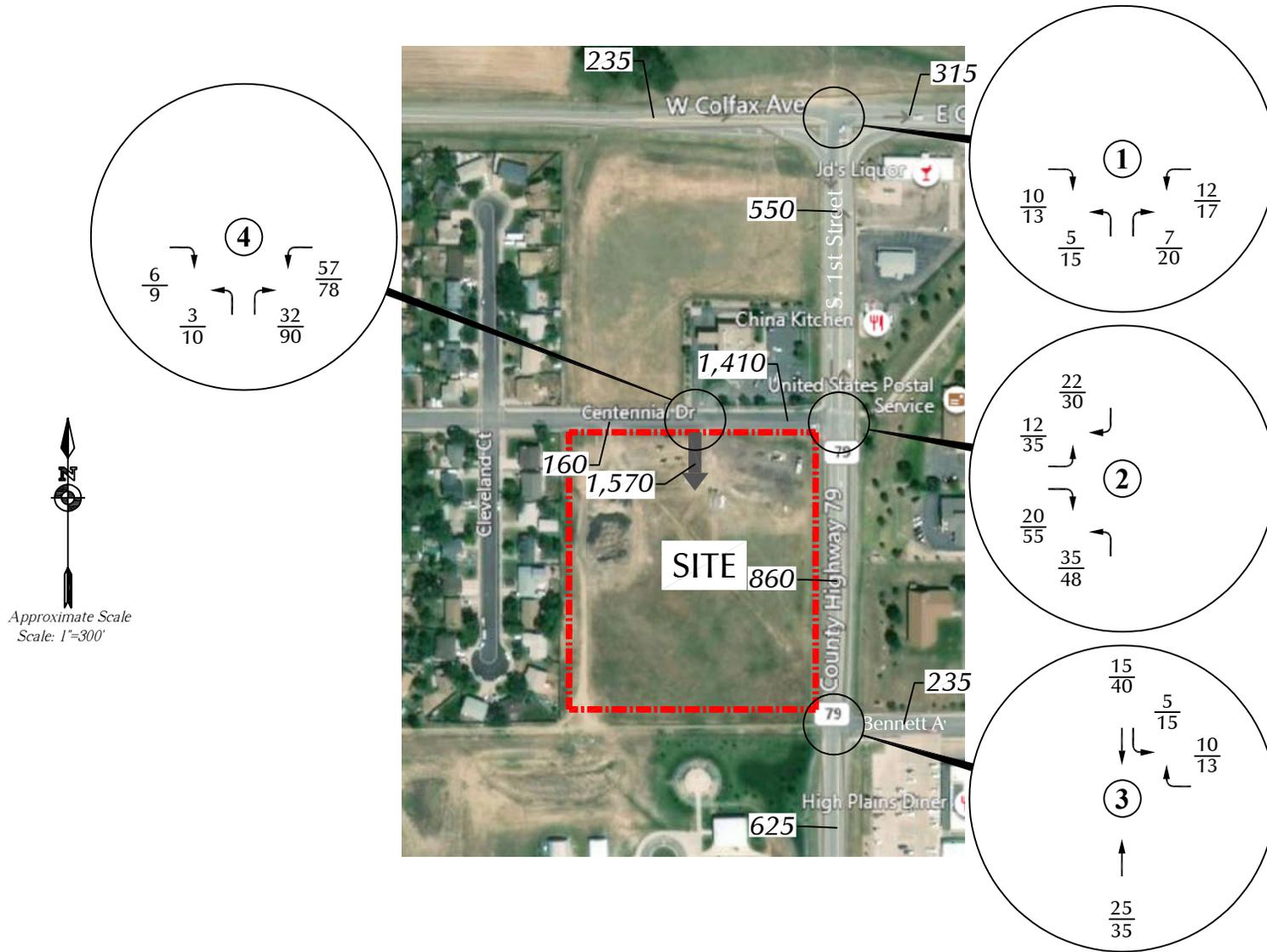


Figure 6
Directional Distribution of Site-Generated Traffic

LEGEND:

← 65% → = Percent Directional Distribution

Shops @ Bennett Square (LSC #211180)



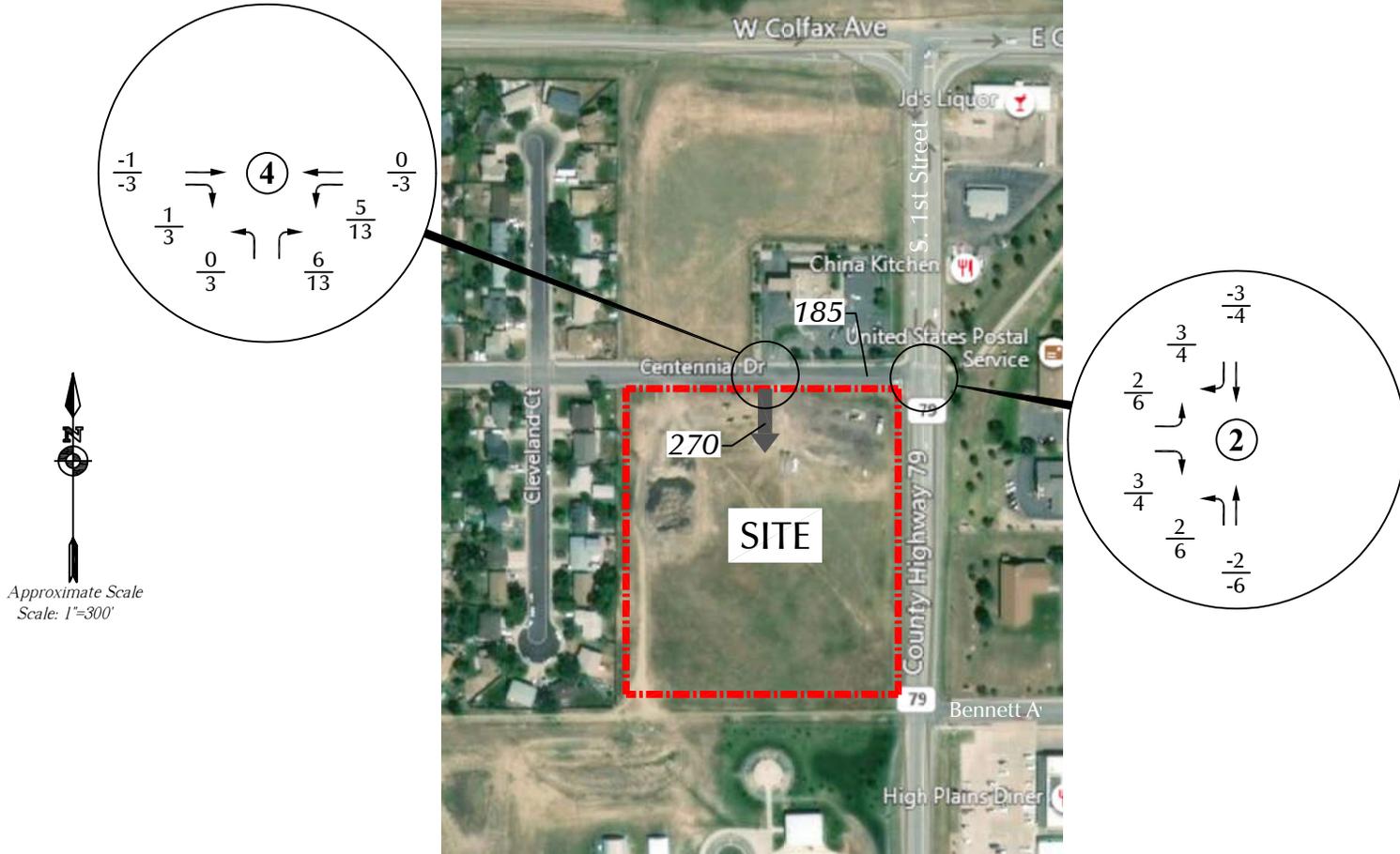
LEGEND:

$\frac{26}{35}$ = AM Peak Hour Traffic
 $\frac{35}{48}$ = PM Peak Hour Traffic
 1,000 = Average Daily Traffic

Assignment of
 Primary Site-Generated Traffic

Shops @ Bennett Square (LSC #211180)

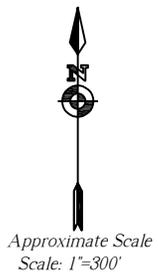
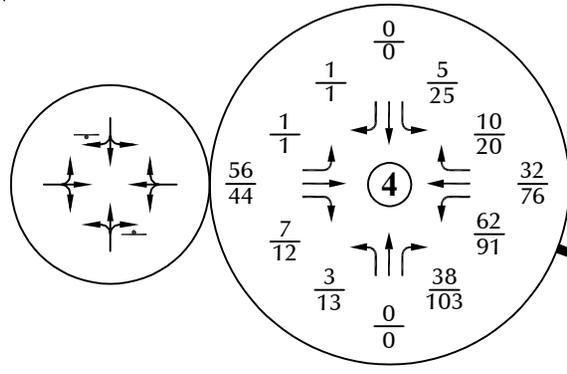
Figure 7a



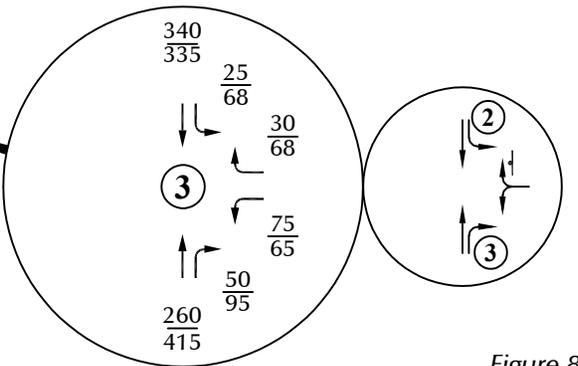
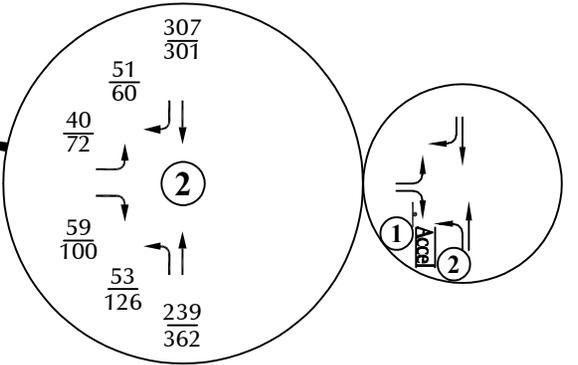
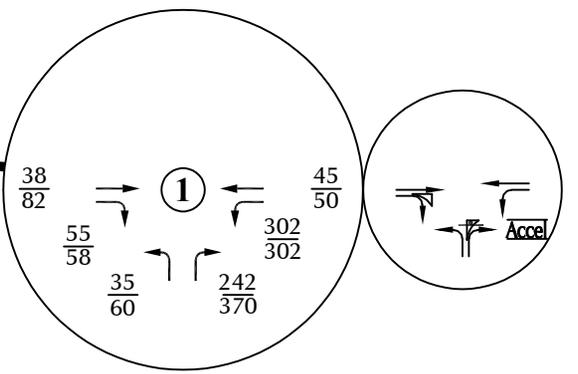
LEGEND:

- $\frac{26}{35}$ = AM Peak Hour Traffic
- $\frac{35}{35}$ = PM Peak Hour Traffic
- 1,000 = Average Daily Traffic

Figure 7b
**Assignment of
Passby Site-Generated Traffic**
Shops @ Bennett Square (LSC #211180)



Note: See Figure 10 for the conceptual lane geometry.



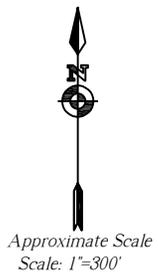
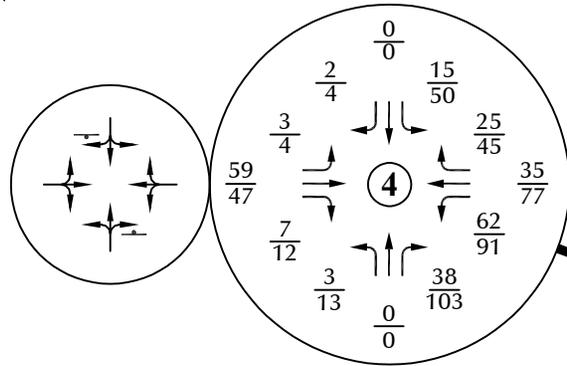
Recommended Improvements:

- ① EB to SB Accel = 388' + 162 foot transition taper (45mph)
- ② Back to back left-turn lane - restriping - See Figure 10
- ③ NB RT = 273 feet + 162-foot transition taper (45mph) - by others

LEGEND:

- ⊥ = Stop Sign
- $\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
- 1,000 = Average Daily Traffic

Figure 8
**Year 2024 Total Traffic,
Lane Geometry and Traffic Control**
Shops @ Bennett Square (LSC #211180)



Note: See Figure 10 for the conceptual lane geometry.



Recommended Improvements:

- ① EB to SB Accel = 388' + 162 foot transition taper (45mph)
- ② Back to back left-turn lane - restriping - See Figure 10
- ③ NB RT = 273 feet + 162-foot transition taper (45mph) - by others

LEGEND:

- ‡ = Stop Sign
- $\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
- 1,000 = Average Daily Traffic

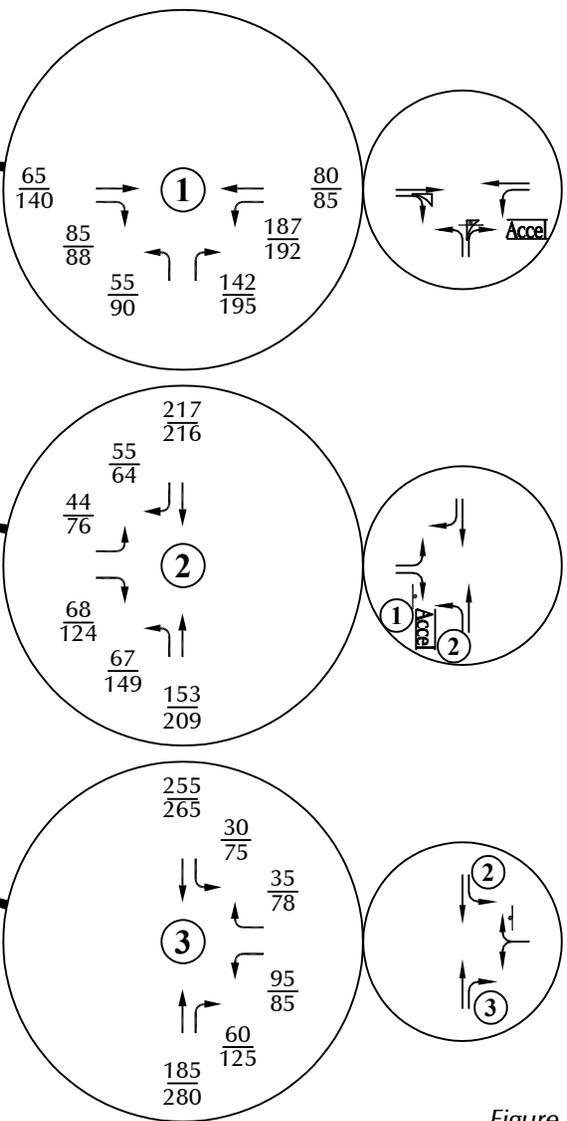


Figure 9
Year 2042 Total Traffic, Lane Geometry and Traffic Control
 Shops @ Bennett Square (LSC #211180)

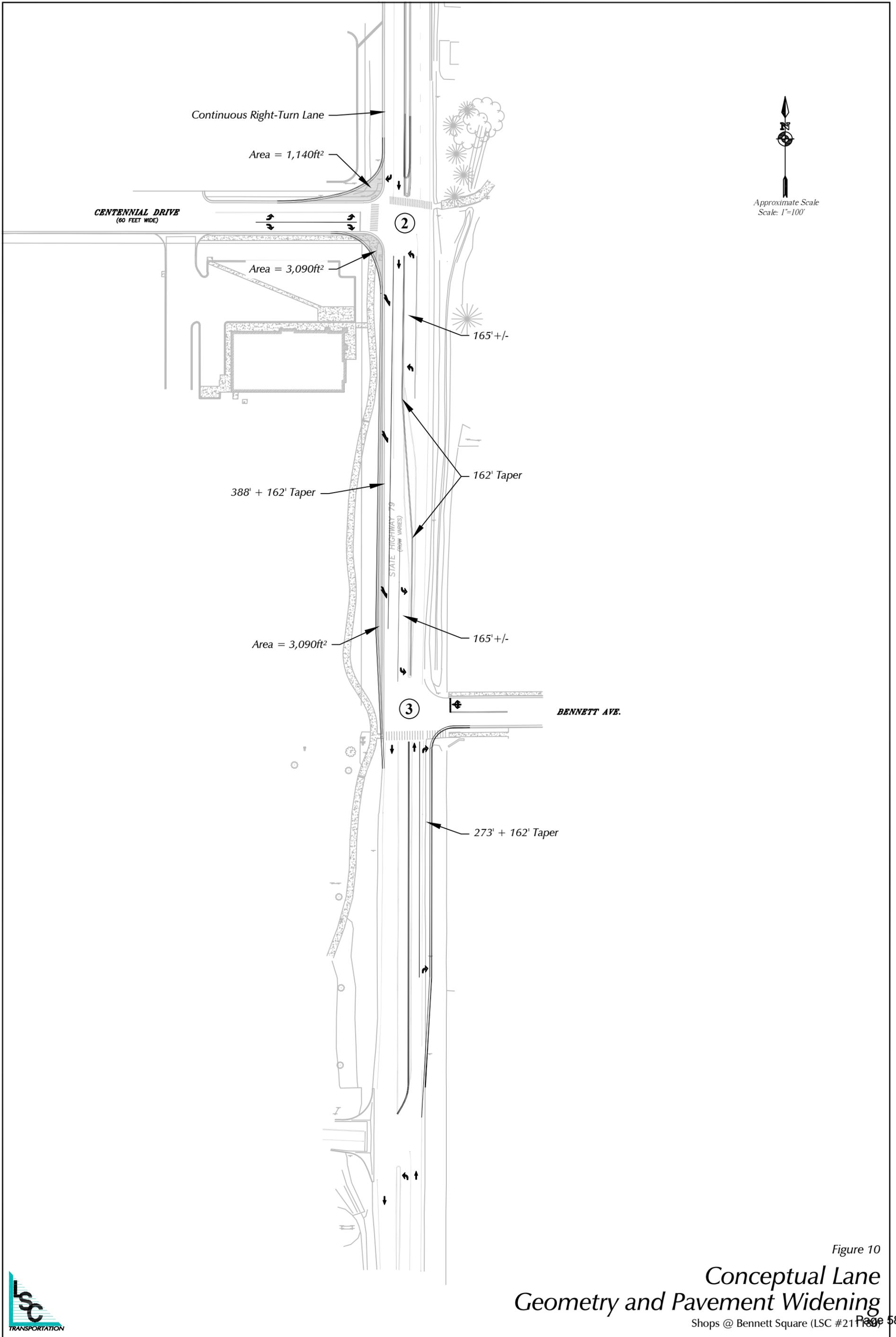
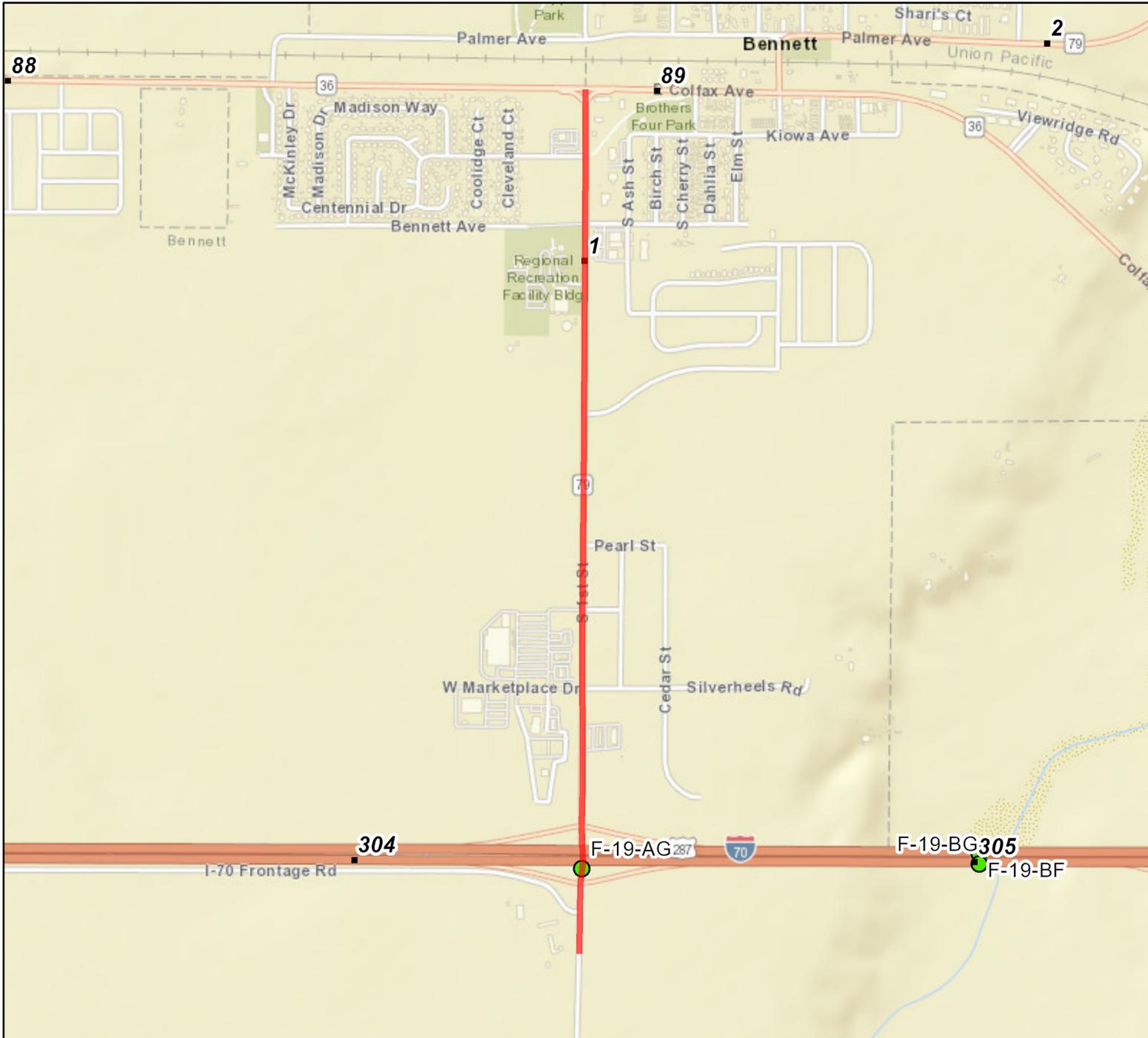


Figure 10

Conceptual Lane Geometry and Pavement Widening



Route 079A From 0 to 2



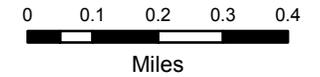
Legend

- Route
- Milepoint
- Structures**
- Major Structure
- Minor Structure

Created:

Date: 4/28/2021

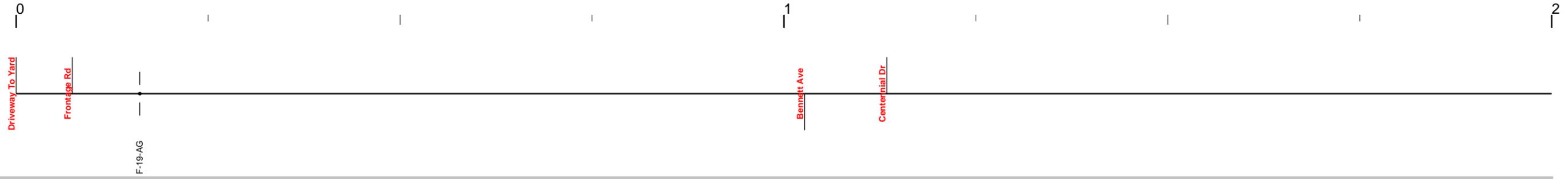
Time: 2:26:00 PM



The information contained in this map is based on the most currently available data and has been checked for accuracy. CDOT does not guarantee the accuracy of any information presented, is not liable in any respect for any errors or omissions, and is not responsible for determining "fitness for use".

Route 079A
From 0 To 2

- ◊ Ramps
- Overpass
- Underpass
- Structures



CLASSIFICATION

Access Control	NR-B: Non-Rural Arterial
Functional Class	5 Major Collector
Highway Designation	SH

SAFETY

Primary Speed Limit	45	35
---------------------	----	----

TRAFFIC

AADT	6600	11000	5900
V/C Ratio 20	0.44	1.08	0.57
Year 20 Factor	1.71	2.07	1.68

It may appear that information is missing from the straight line diagram. If so, reduce the number of miles/page and re-submit the request.

COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 1ST STREET
E/W STREET: COLFAX AVENUE
CITY: BENNETT
COUNTY: ADAMS

File Name : 1STCOLFAX
Site Code : 0000013
Start Date : 6/16/2021
Page No : 1

Groups Printed- VEHICLES

Start Time	Southbound				COLFAX AVENUE Westbound				1ST STREET Northbound				COLFAX AVENUE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
06:30 AM	0	0	0	0	26	7	0	0	7	0	12	0	0	8	0	0	60
06:45 AM	0	0	0	0	33	7	0	0	9	0	16	0	0	2	4	0	71
Total	0	0	0	0	59	14	0	0	16	0	28	0	0	10	4	0	131
07:00 AM	0	0	0	0	35	8	0	0	5	0	18	0	0	8	5	0	79
07:15 AM	0	0	0	0	31	13	0	0	5	0	21	0	0	0	5	0	75
07:30 AM	0	0	0	0	44	13	0	0	3	0	28	0	0	9	7	0	104
07:45 AM	0	0	0	0	47	11	0	0	4	0	32	0	0	11	7	0	112
Total	0	0	0	0	157	45	0	0	17	0	99	0	0	28	24	0	370
08:00 AM	0	0	0	0	59	7	0	0	8	0	31	0	0	6	3	0	114
08:15 AM	0	0	0	0	51	8	0	0	5	0	27	0	0	6	6	0	103
Total	0	0	0	0	110	15	0	0	13	0	58	0	0	12	9	0	217
04:00 PM	0	0	0	0	37	6	0	0	6	0	41	0	0	17	17	0	124
04:15 PM	0	0	0	0	41	9	0	0	9	0	39	0	0	14	18	0	130
04:30 PM	0	0	0	0	44	10	0	1	8	0	44	0	0	18	17	0	142
04:45 PM	0	0	0	0	41	6	0	0	13	0	49	1	0	13	12	0	135
Total	0	0	0	0	163	31	0	1	36	0	173	1	0	62	64	0	531
05:00 PM	0	0	0	0	44	10	0	0	6	0	51	1	0	7	19	0	138
05:15 PM	0	0	0	0	48	10	0	0	8	0	49	0	0	18	11	0	144
05:30 PM	0	0	0	0	52	4	0	0	9	0	46	1	0	18	10	0	140
05:45 PM	0	0	0	0	37	4	0	0	11	0	62	0	0	15	5	0	134
Total	0	0	0	0	181	28	0	0	34	0	208	2	0	58	45	0	556
Grand Total	0	0	0	0	670	133	0	1	116	0	566	3	0	170	146	0	1805
Apprch %	0.0	0.0	0.0	0.0	83.3	16.5	0.0	0.1	16.9	0.0	82.6	0.4	0.0	53.8	46.2	0.0	
Total %	0.0	0.0	0.0	0.0	37.1	7.4	0.0	0.1	6.4	0.0	31.4	0.2	0.0	9.4	8.1	0.0	

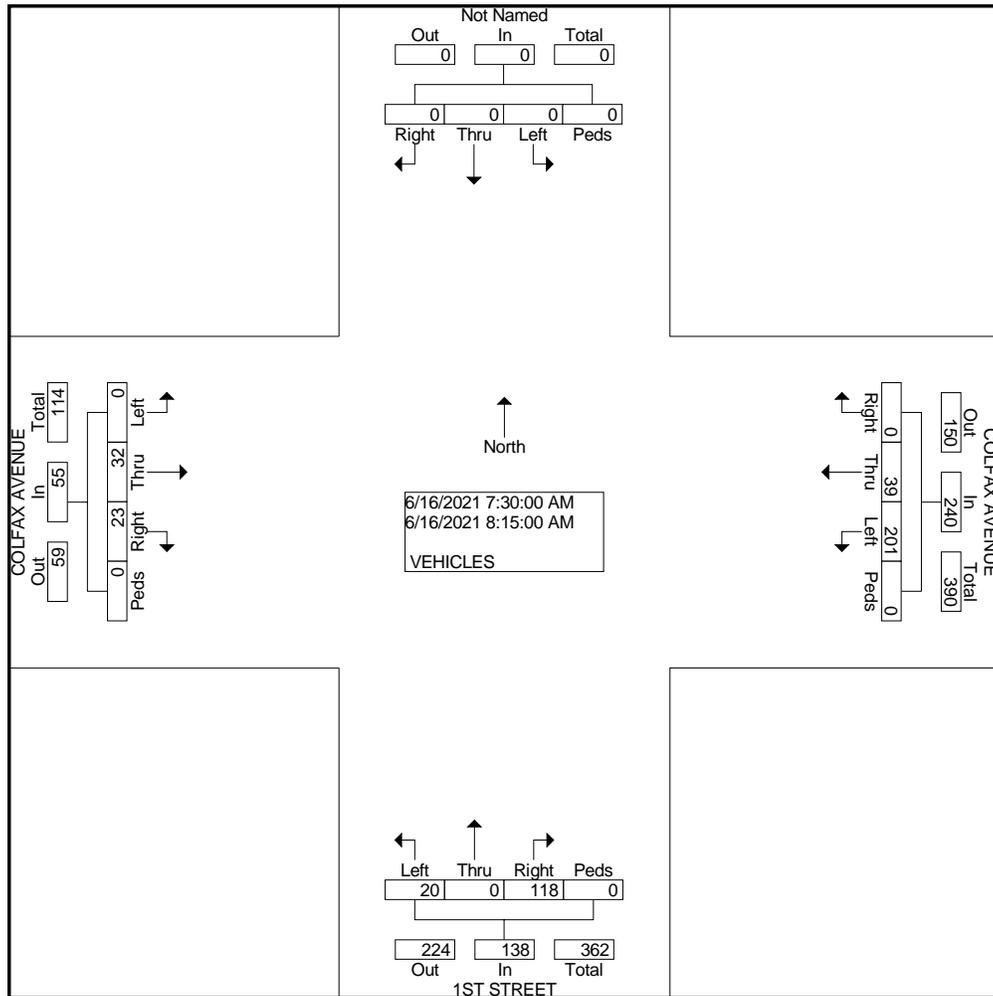
COUNTER MEASURES INC.

1889 YORK STREET
DENVER, COLORADO
303-333-7409

N/S STREET: 1ST STREET
E/W STREET: COLFAX AVENUE
CITY: BENNETT
COUNTY: ADAMS

File Name : 1STCOLFAX
Site Code : 0000013
Start Date : 6/16/2021
Page No : 2

Start Time	Southbound					COLFAX AVENUE Westbound					1ST STREET Northbound					COLFAX AVENUE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	0	0	0	0	0	201	39	0	0	240	20	0	118	0	138	0	32	23	0	55	433
Percent	0.0	0.0	0.0	0.0		83.8	16.3	0.0	0.0		14.5	0.0	85.5	0.0		0.0	58.2	41.8	0.0		
08:00 Volume	0	0	0	0	0	59	7	0	0	66	8	0	31	0	39	0	6	3	0	9	114
Peak Factor																					
High Int. Volume	6:15:00 AM					08:00 AM					08:00 AM					07:45 AM					
Peak Factor						0.90					0.88					0.76					4



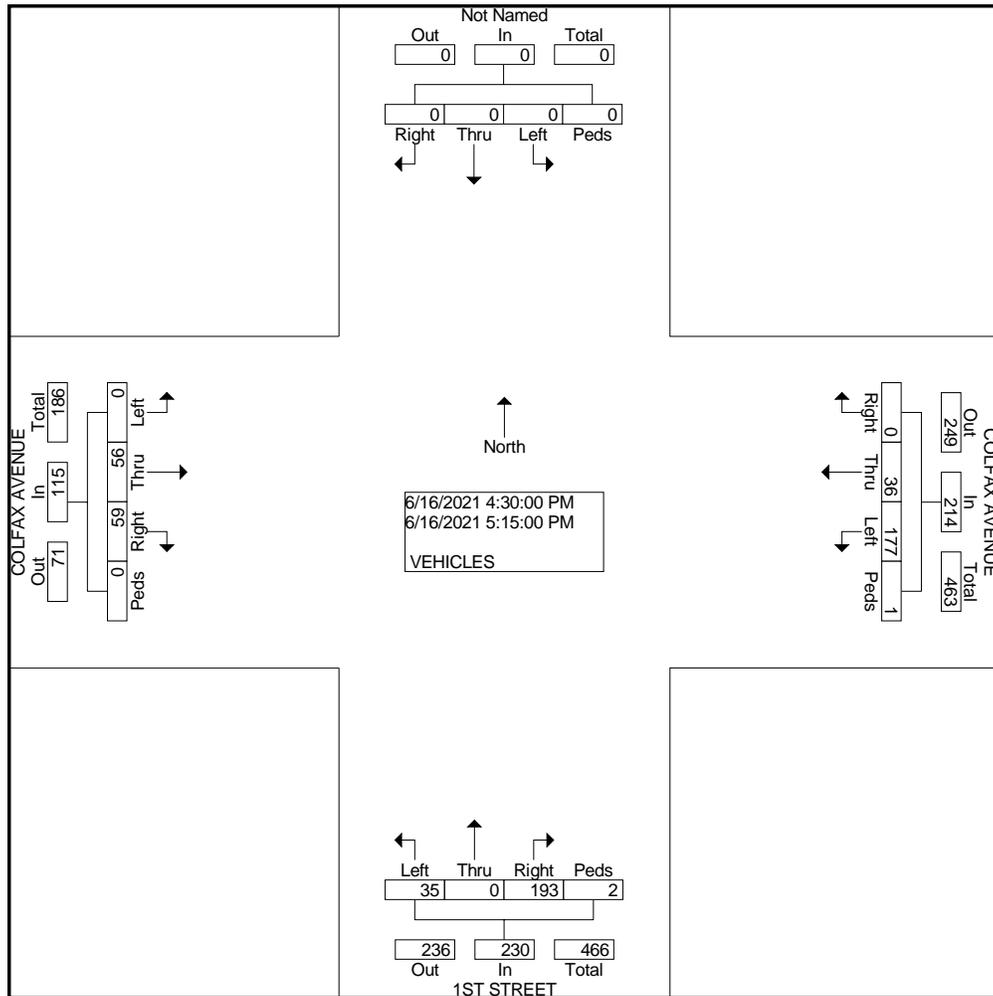
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Start Time	Southbound					COLFAX AVENUE Westbound					1ST STREET Northbound					COLFAX AVENUE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	0	0	0	0	0	177	36	0	1	214	35	0	193	2	230	0	56	59	0	115	559
Percent	0.0	0.0	0.0	0.0		82.7	16.8	0.0	0.5		15.2	0.0	83.9	0.9		0.0	48.7	51.3	0.0		
05:15 Volume	0	0	0	0	0	48	10	0	0	58	8	0	49	0	57	0	18	11	0	29	144
Peak Factor																					
High Int. Volume	05:15 PM					04:45 PM					04:30 PM										
Peak Factor	0	0	0	0	0	48	10	0	0	58	13	0	49	1	63	0	18	17	0	35	0.970
						0.92					0.91					0.82					
						2					3					1					



COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 1ST STREET
E/W STREET: CENTENNIAL DRIVE
CITY: BENNETT
COUNTY: ADAMS

File Name : 1STCENT
Site Code : 00000005
Start Date : 6/16/2021
Page No : 1

Groups Printed- VEHICLES

Start Time	1ST STREET Southbound				Westbound				1ST STREET Northbound				CENTENNIAL DRIVE Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	23	1	0	0	0	0	0	1	15	0	0	3	0	8	0	51
06:45 AM	0	41	0	2	0	0	0	1	1	25	0	0	1	0	18	0	89
Total	0	64	1	2	0	0	0	1	2	40	0	0	4	0	26	0	140
07:00 AM	0	38	0	0	0	0	0	0	6	25	0	0	2	0	10	0	81
07:15 AM	0	33	2	1	0	0	0	0	3	26	0	0	3	0	9	0	77
07:30 AM	0	45	5	0	0	0	0	0	2	25	0	0	6	0	8	1	92
07:45 AM	0	44	6	0	0	0	0	0	2	34	0	0	10	0	8	0	104
Total	0	160	13	1	0	0	0	0	13	110	0	0	21	0	35	1	354
08:00 AM	0	65	5	0	0	0	0	0	0	38	0	0	3	0	6	0	117
08:15 AM	0	49	6	0	0	0	0	0	7	29	0	0	4	0	5	0	100
Total	0	114	11	0	0	0	0	0	7	67	0	0	7	0	11	0	217
04:00 PM	0	44	11	0	0	0	0	0	13	49	0	0	1	1	15	0	134
04:15 PM	0	54	4	0	0	0	0	0	11	51	0	0	1	0	8	0	129
04:30 PM	0	57	7	0	0	0	0	0	11	58	0	0	5	0	7	0	145
04:45 PM	0	43	5	0	0	0	0	0	23	54	0	0	11	0	9	0	145
Total	0	198	27	0	0	0	0	0	58	212	0	0	18	1	39	0	553
05:00 PM	0	63	3	0	0	0	0	0	12	64	0	0	5	0	6	0	153
05:15 PM	0	54	5	0	0	0	0	0	15	62	0	0	4	0	10	0	150
05:30 PM	0	55	7	0	0	0	0	1	11	58	0	0	4	0	5	0	141
05:45 PM	0	39	3	0	0	0	0	1	8	73	0	0	4	0	9	0	137
Total	0	211	18	0	0	0	0	2	46	257	0	0	17	0	30	0	581
Grand Total	0	747	70	3	0	0	0	3	126	686	0	0	67	1	141	1	1845
Apprch %	0.0	91.1	8.5	0.4	0.0	0.0	0.0	100.0	15.5	84.5	0.0	0.0	31.9	0.5	67.1	0.5	
Total %	0.0	40.5	3.8	0.2	0.0	0.0	0.0	0.2	6.8	37.2	0.0	0.0	3.6	0.1	7.6	0.1	

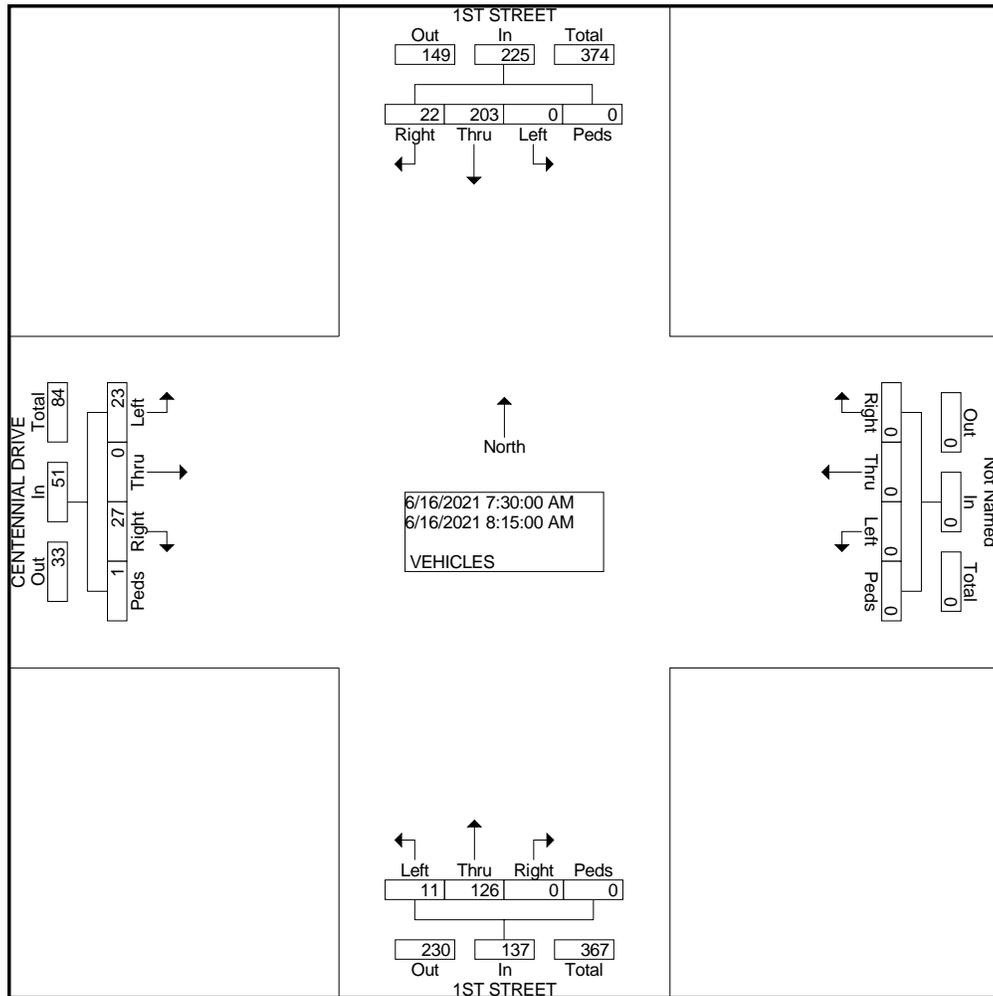
COUNTER MEASURES INC.

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N/S STREET: 1ST STREET
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CITY: BENNETT
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File Name : 1STCENT
Site Code : 00000005
Start Date : 6/16/2021
Page No : 2

Start Time	1ST STREET Southbound					Westbound					1ST STREET Northbound					CENTENNIAL DRIVE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	0	203	22	0	225	0	0	0	0	0	11	126	0	0	137	23	0	27	1	51	413
Percent	0.0	90.2	9.8	0.0		0.0	0.0	0.0	0.0		8.0	92.0	0.0	0.0		45.1	0.0	52.9	2.0		
08:00 Volume	0	65	5	0	70	0	0	0	0	0	0	38	0	0	38	3	0	6	0	9	117
Peak Factor																					
High Int. Factor	0.882																				
Intersection	08:00 AM																				
Volume	0	65	5	0	70	0	0	0	0	0	0	38	0	0	38	10	0	8	0	18	117
Peak Factor	0.80																				
Factor	4																				



COUNTER MEASURES INC.

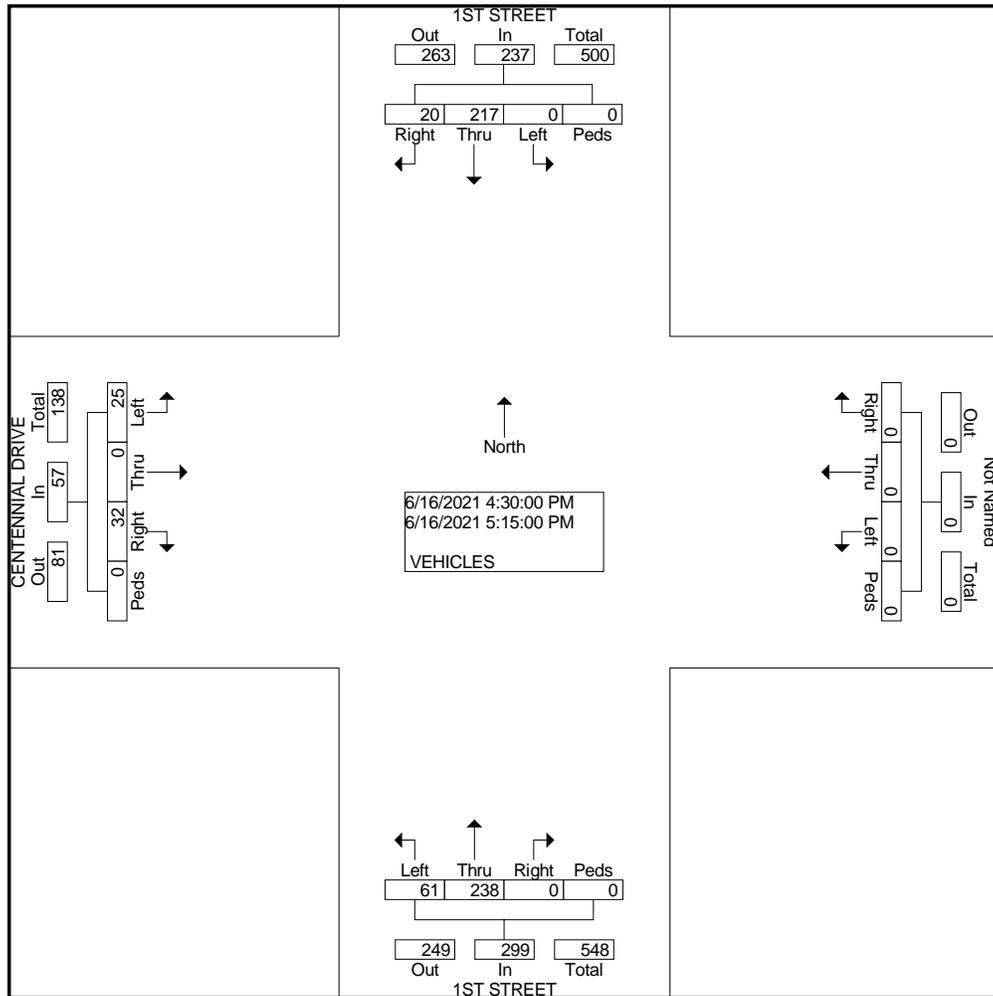
1889 YORK STREET
DENVER, COLORADO
303-333-7409

N/S STREET: 1ST STREET
E/W STREET: CENTENNIAL DRIVE
CITY: BENNETT
COUNTY: ADAMS

File Name : 1STCENT
Site Code : 00000005
Start Date : 6/16/2021
Page No : 2

Start Time	1ST STREET Southbound					Westbound					1ST STREET Northbound					CENTENNIAL DRIVE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Intersecti on	04:30 PM																				
Volume	0	217	20	0	237	0	0	0	0	0	61	238	0	0	299	25	0	32	0	57	593
Percent	0.0	91.6	8.4	0.0		0.0	0.0	0.0	0.0		20.4	79.6	0.0	0.0		43.9	0.0	56.1	0.0		
05:00 Volume	0	63	3	0	66	0	0	0	0	0	12	64	0	0	76	5	0	6	0	11	153
Peak Factor																					0.969
High Int. Volume	05:00 PM																				
Peak Factor	0	63	3	0	66	0	0	0	0	0	04:45 PM					04:45 PM					
					0.89						23	54	0	0	77	11	0	9	0	20	0.71
					8										1					3	

Peak Hour From 04:30 PM to 05:15 PM - Peak 1 of 1



COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 1ST STREET
E/W STREET: BENNETT AVENUE
CITY: BENNETT
COUNTY: ADAMS

File Name : 1STBENNETT
Site Code : 00000025
Start Date : 6/16/2021
Page No : 1

Groups Printed- VEHICLES

Start Time	1ST STREET Southbound				BENNETT AVE Westbound				1ST STREET Northbound				Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
Factor	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
06:30 AM	0	32	0	0	9	0	0	0	0	15	2	0	0	0	0	0	58
06:45 AM	3	56	0	0	10	0	2	0	0	24	4	0	0	0	0	0	99
Total	3	88	0	0	19	0	2	0	0	39	6	0	0	0	0	0	157
07:00 AM	0	48	0	0	10	0	2	0	0	29	5	0	0	0	0	0	94
07:15 AM	1	43	0	0	11	0	1	0	0	28	6	0	0	0	0	0	90
07:30 AM	0	54	0	0	7	0	1	0	0	29	5	0	0	0	0	0	96
07:45 AM	2	50	0	0	14	0	3	0	0	34	9	0	0	0	0	0	112
Total	3	195	0	0	42	0	7	0	0	120	25	0	0	0	0	0	392
08:00 AM	5	65	0	0	7	0	0	0	0	36	11	0	0	0	0	0	124
08:15 AM	5	49	0	0	12	0	3	0	0	32	4	0	0	0	0	0	105
Total	10	114	0	0	19	0	3	0	0	68	15	0	0	0	0	0	229
04:00 PM	3	57	0	0	11	4	5	0	0	54	17	0	0	0	0	0	151
04:15 PM	6	55	0	0	11	0	4	0	0	57	18	0	0	0	0	0	151
04:30 PM	6	56	0	0	13	0	10	0	0	60	12	0	0	0	0	0	157
04:45 PM	8	44	0	0	20	0	6	2	0	74	23	0	0	0	0	2	179
Total	23	212	0	0	55	4	25	2	0	245	70	0	0	0	0	2	638
05:00 PM	9	59	0	0	11	0	6	0	0	68	14	0	0	0	0	0	167
05:15 PM	6	56	0	0	9	0	7	0	0	69	19	0	0	0	0	0	166
05:30 PM	5	56	0	0	10	0	3	0	0	68	20	0	0	0	0	0	162
05:45 PM	3	44	0	0	13	0	7	0	0	74	16	0	0	0	0	0	157
Total	23	215	0	0	43	0	23	0	0	279	69	0	0	0	0	0	652
Grand Total	62	824	0	0	178	4	60	2	0	751	185	0	0	0	0	2	2068
Apprch %	7.0	93.0	0.0	0.0	73.0	1.6	24.6	0.8	0.0	80.2	19.8	0.0	0.0	0.0	0.0	100.0	
Total %	3.0	39.8	0.0	0.0	8.6	0.2	2.9	0.1	0.0	36.3	8.9	0.0	0.0	0.0	0.0	0.1	

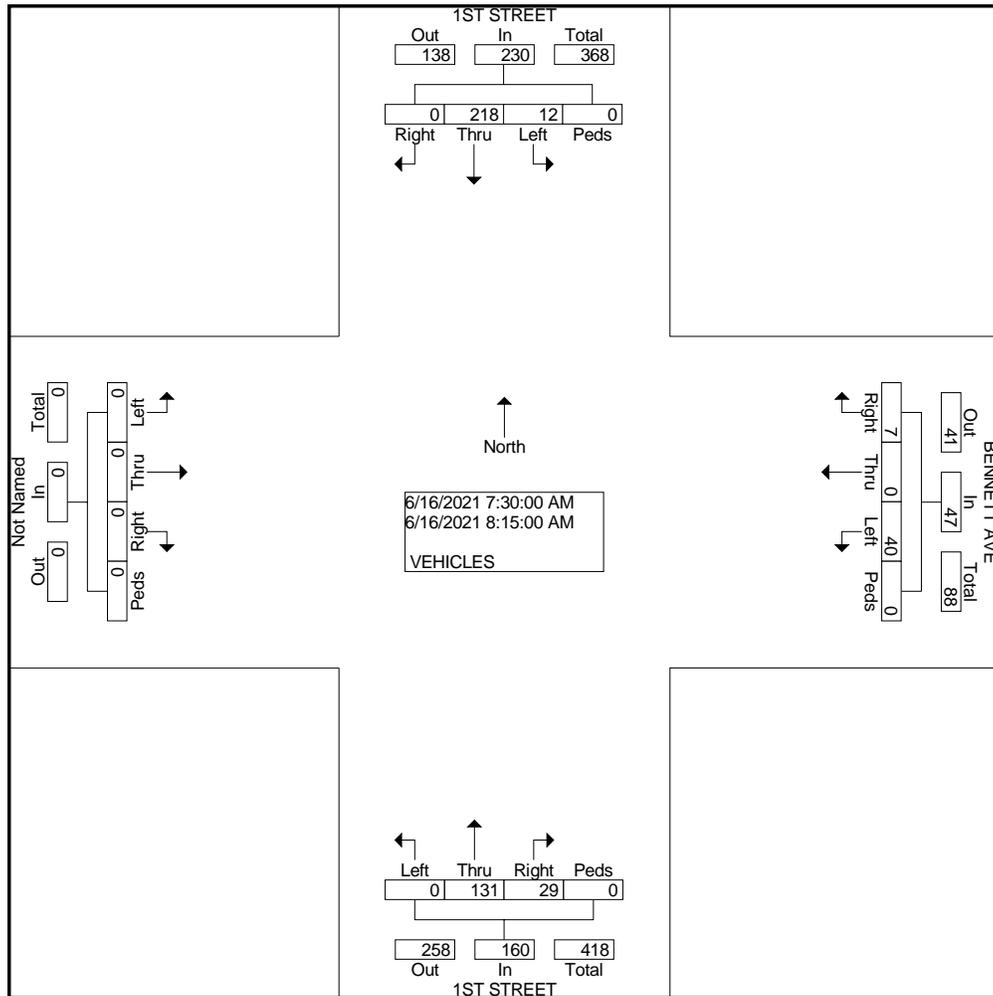
COUNTER MEASURES INC.

1889 YORK STREET
DENVER.COLORADO
303-333-7409

N/S STREET: 1ST STREET
E/W STREET: BENNETT AVENUE
CITY: BENNETT
COUNTY: ADAMS

File Name : 1STBENNETT
Site Code : 00000025
Start Date : 6/16/2021
Page No : 2

Start Time	1ST STREET Southbound					BENNETT AVE Westbound					1ST STREET Northbound					Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Intersect on	07:30 AM																				
Volume	12	218	0	0	230	40	0	7	0	47	0	131	29	0	160	0	0	0	0	0	437
Percent	5.2	94.8	0.0	0.0		85.1	0.0	14.9	0.0		0.0	81.9	18.1	0.0		0.0	0.0	0.0	0.0		
08:00 Volume	5	65	0	0	70	7	0	0	0	7	0	36	11	0	47	0	0	0	0	0	124
Peak Factor																					
High Int. Volume	08:00 AM					07:45 AM					08:00 AM										
Peak Factor	0.82					0.69					0.85					1					



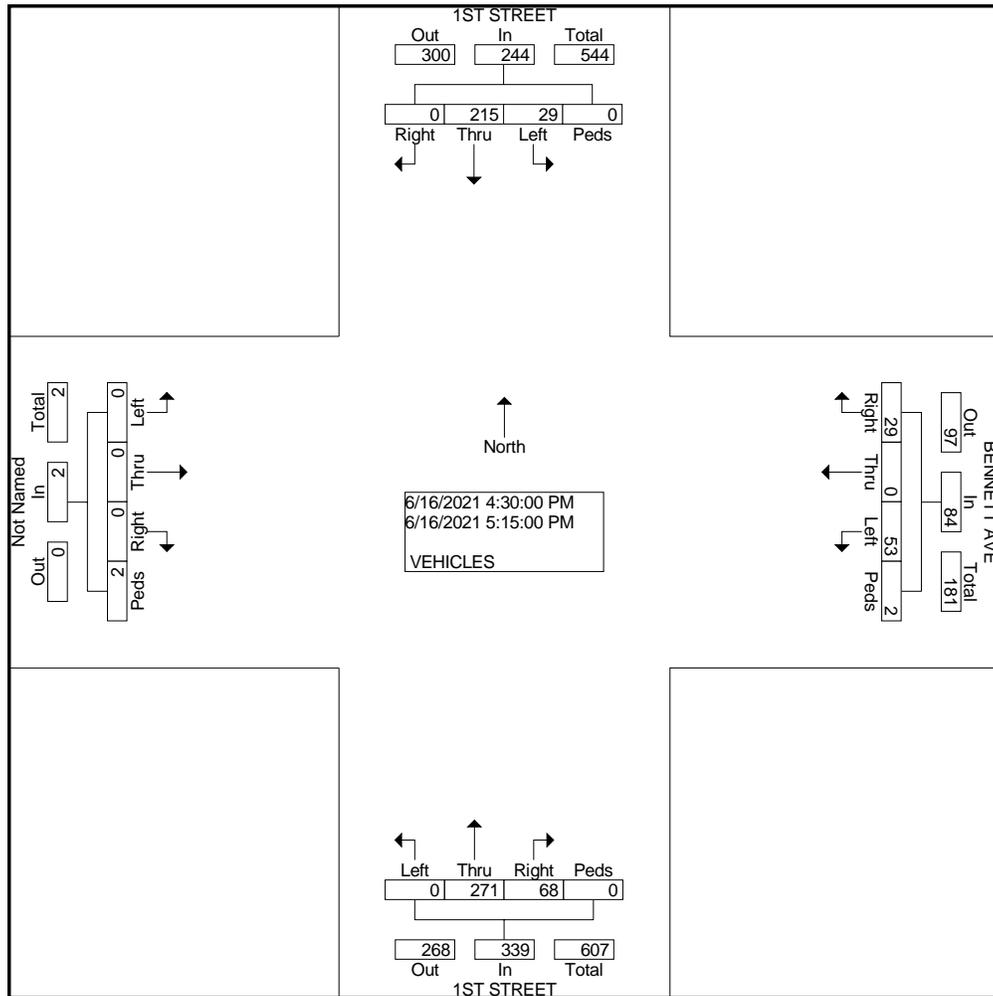
COUNTER MEASURES INC.

1889 YORK STREET
DENVER, COLORADO
303-333-7409

N/S STREET: 1ST STREET
E/W STREET: BENNETT AVENUE
CITY: BENNETT
COUNTY: ADAMS

File Name : 1STBENNETT
Site Code : 00000025
Start Date : 6/16/2021
Page No : 2

Start Time	1ST STREET Southbound					BENNETT AVE Westbound					1ST STREET Northbound					Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	29	215	0	0	244	53	0	29	2	84	0	271	68	0	339	0	0	0	2	2	669
Percent	11.9	88.1	0.0	0.0		63.1	0.0	34.5	2.4		0.0	79.9	20.1	0.0		0.0	0.0	0.0	100.0		
04:45 Volume	8	44	0	0	52	20	0	6	2	28	0	74	23	0	97	0	0	0	2	2	179
Peak Factor	0.934																				
High Int. Volume	05:00 PM																				
Peak Factor	0.89																				
04:45 Volume	9	59	0	0	68	20	0	6	2	28	0	74	23	0	97	0	0	0	2	2	179
Peak Factor	0.87																				
04:45 Volume	04:45 PM																				
Peak Factor	0.25																				
04:45 Volume	04:45 PM																				
Peak Factor	0																				



COUNTER MEASURES INC.
1889 YORK STREET
DENVER, COLORADO 80206
303-333-7409

Location: 1ST STREET S-O COLFAX AVENUE
 City: BENNETT
 County: ADAMS
 Direction: NORTH/SOUTH

Site Code: 211407
 Station ID: 211407

Start Time	15-Jun-21 Tue	NORTHBOU	SOUTHBOU							Total
12:00 AM		26	9							35
01:00		9	10							19
02:00		6	7							13
03:00		4	17							21
04:00		27	39							66
05:00		35	108							143
06:00		75	164							239
07:00		139	178							317
08:00		144	240							384
09:00		190	216							406
10:00		213	201							414
11:00		207	228							435
12:00 PM		245	260							505
01:00		236	254							490
02:00		236	204							440
03:00		205	234							439
04:00		242	252							494
05:00		274	258							532
06:00		199	200							399
07:00		161	144							305
08:00		144	120							264
09:00		108	108							216
10:00		58	52							110
11:00		37	26							63
Total		3220	3529							6749
Percent		47.7%	52.3%							
AM Peak	-	10:00	08:00	-	-	-	-	-	-	11:00
Vol.	-	213	240	-	-	-	-	-	-	435
PM Peak	-	17:00	12:00	-	-	-	-	-	-	17:00
Vol.	-	274	260	-	-	-	-	-	-	532
Grand Total		3220	3529							6749
Percent		47.7%	52.3%							

ADT

ADT 6,749

AADT 6,749

COUNTER MEASURES INC.
1889 YORK STREET
DENVER, COLORADO 80206
303-333-7409

Location: 1ST STREET S-O CENTENNIAL DRIVE
 City: BENNETT
 County: ADAMS
 Direction: NORTH/SOUTH

Site Code: 211419
 Station ID: 211419

Start Time	15-Jun-21 Tue	NORTHBOU	SOUTHBOU							Total
12:00 AM		32	10							42
01:00		10	10							20
02:00		8	10							18
03:00		5	20							25
04:00		26	50							76
05:00		36	144							180
06:00		69	206							275
07:00		136	201							337
08:00		159	256							415
09:00		201	241							442
10:00		214	205							419
11:00		226	250							476
12:00 PM		262	275							537
01:00		254	278							532
02:00		252	208							460
03:00		244	248							492
04:00		266	252							518
05:00		306	274							580
06:00		239	220							459
07:00		177	152							329
08:00		165	136							301
09:00		125	108							233
10:00		74	57							131
11:00		42	26							68
Total		3528	3837							7365
Percent		47.9%	52.1%							
AM Peak	-	11:00	08:00	-	-	-	-	-	-	11:00
Vol.	-	226	256	-	-	-	-	-	-	476
PM Peak	-	17:00	13:00	-	-	-	-	-	-	17:00
Vol.	-	306	278	-	-	-	-	-	-	580
Grand Total		3528	3837							7365
Percent		47.9%	52.1%							

ADT

ADT 7,365

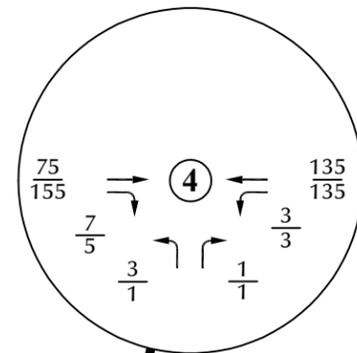
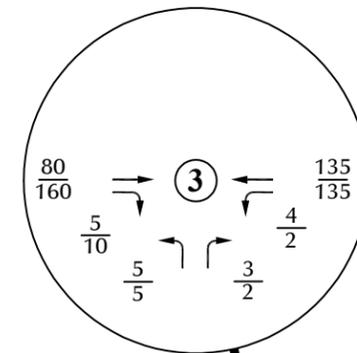
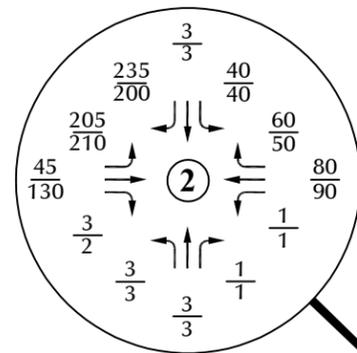
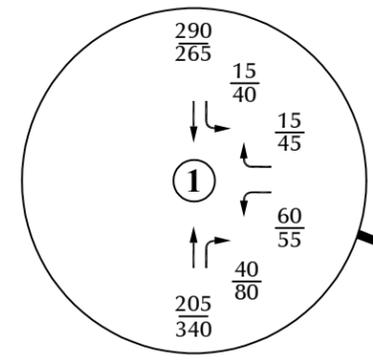
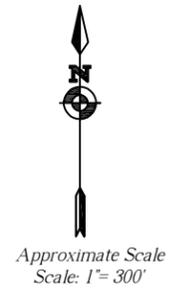
AADT 7,365

COUNTER MEASURES INC.
1889 YORK STREET
DENVER, COLORADO 80206
303-333-7409

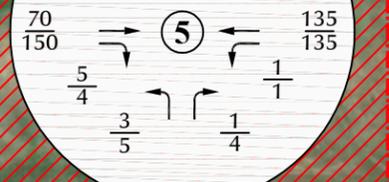
Location: CENTENNIAL DRIVE W-O 1ST STREET
 City: BENNETT
 County: ADAMS
 Direction: EAST/WEST

Site Code: 211414
 Station ID: 211414

Start Time	15-Jun-21 Tue	EASTBOUN	WESTBOUN							Total
12:00 AM		2	7							9
01:00		2	2							4
02:00		3	3							6
03:00		4	1							5
04:00		14	3							17
05:00		40	5							45
06:00		58	8							66
07:00		51	22							73
08:00		32	31							63
09:00		58	39							97
10:00		50	35							85
11:00		52	54							106
12:00 PM		46	46							92
01:00		55	49							104
02:00		40	50							90
03:00		47	70							117
04:00		47	68							115
05:00		59	74							133
06:00		45	65							110
07:00		34	41							75
08:00		34	39							73
09:00		20	38							58
10:00		7	15							22
11:00		4	9							13
Total		804	774							1578
Percent		51.0%	49.0%							
AM Peak	-	06:00	11:00	-	-	-	-	-	-	11:00
Vol.	-	58	54	-	-	-	-	-	-	106
PM Peak	-	17:00	17:00	-	-	-	-	-	-	17:00
Vol.	-	59	74	-	-	-	-	-	-	133
Grand Total		804	774							1578
Percent		51.0%	49.0%							
ADT		ADT 1,578	AADT 1,578							



SITE



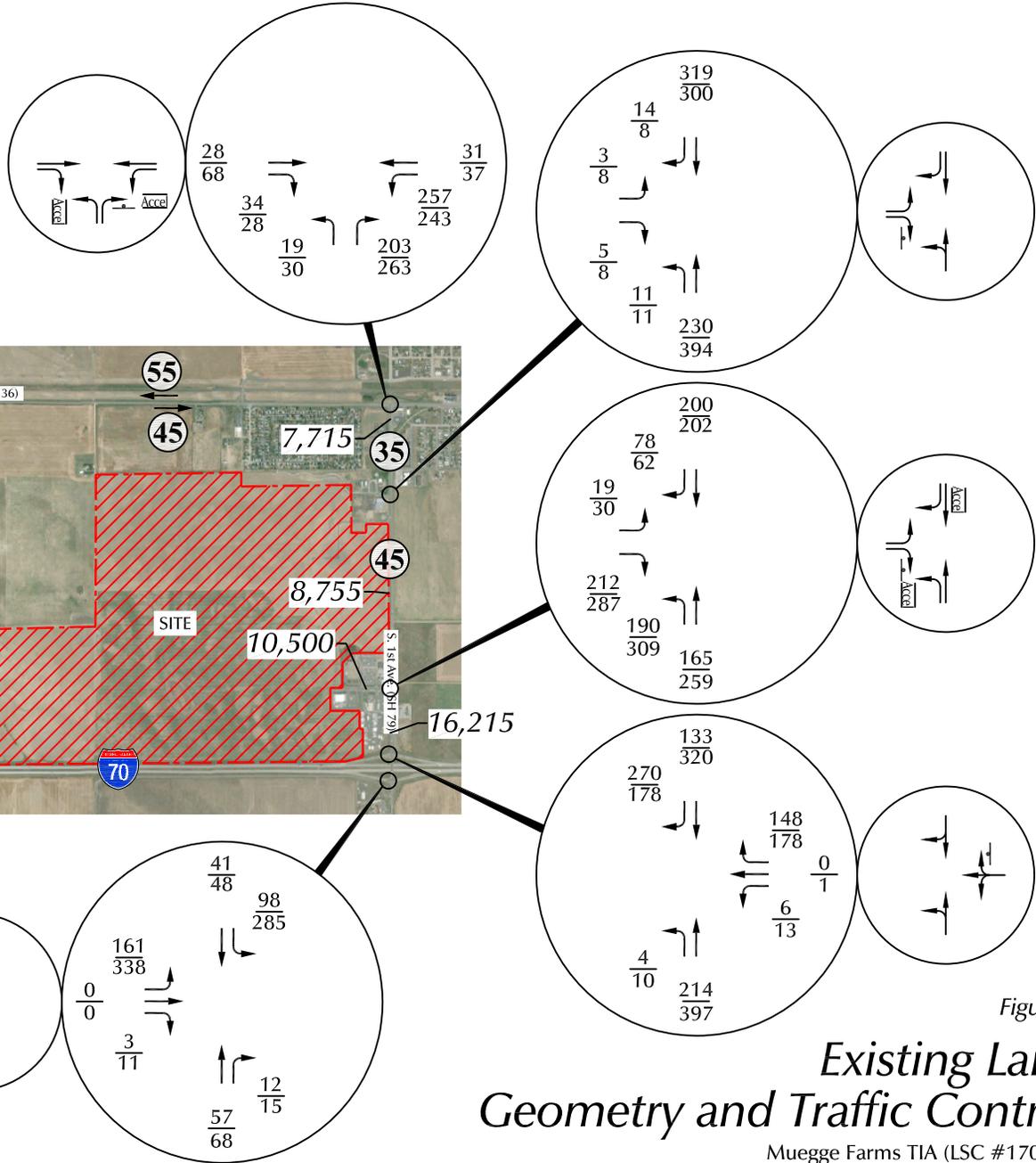
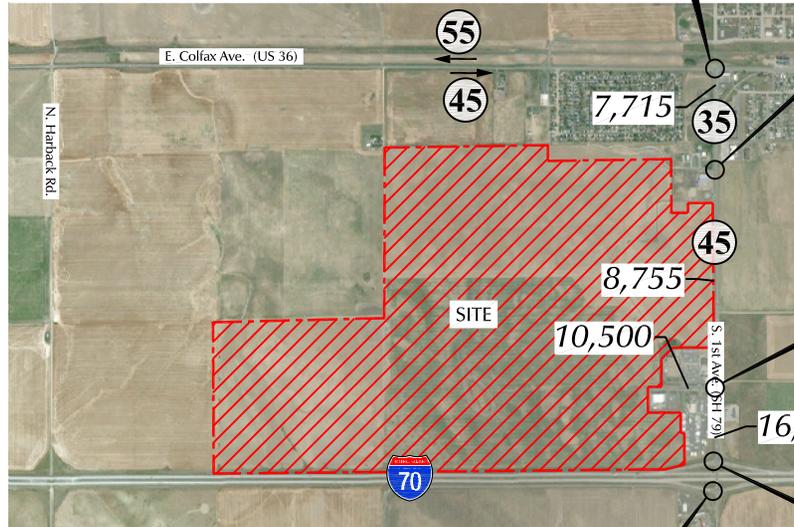
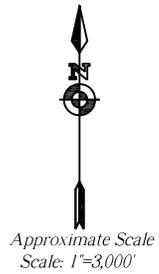
- Notes:
1. Intersection #1 was adjusted based on the 2017 traffic counts from the Muegge Farms TIA by LSC grown for three years at an annual rate of about 1.5 percent.
 2. Intersection #2 was adjusted based on the 2017 traffic counts from the Muegge Farms TIA by LSC at the intersection of E. Colfax Avenue (US 36)/SH 79.
 3. Intersections #3, #4 and #5 were adjusted based on the adjacent volumes at Intersection #2.

LEGEND:

$\frac{26}{35}$	=	AM Peak Hour Traffic
$\frac{35}{35}$	=	PM Peak Hour Traffic
1,000	=	Average Daily Traffic



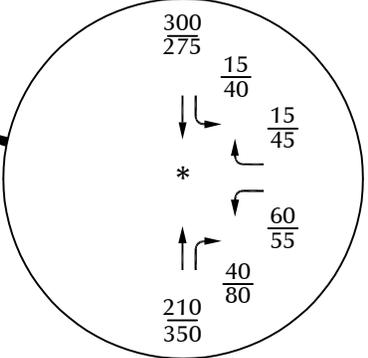
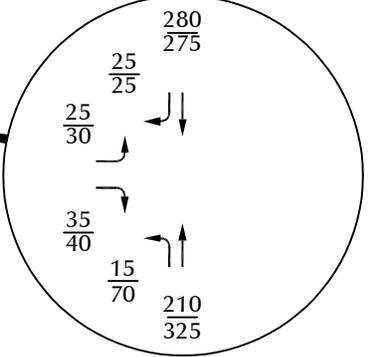
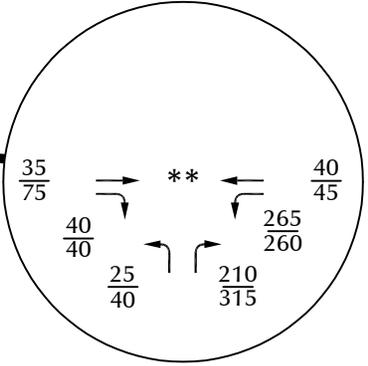
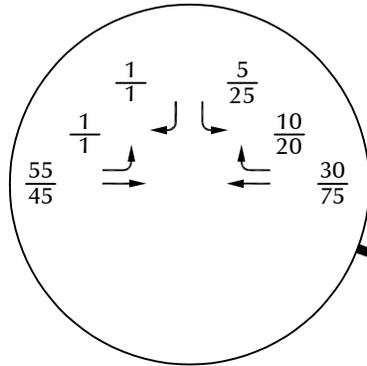
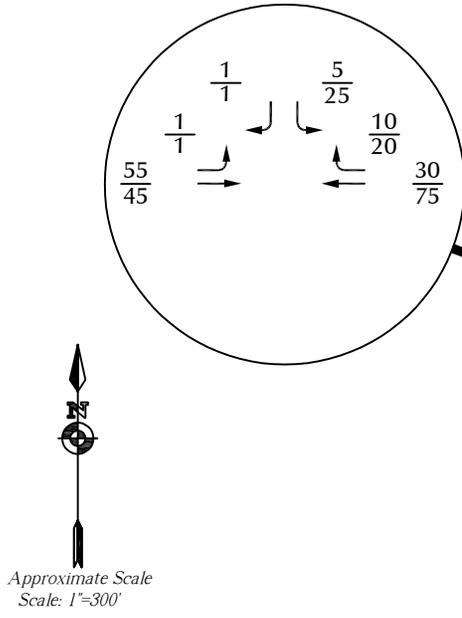
Figure 3b
**Existing Traffic Volumes
Adjusted for Pandemic**
Worthman Acres (LSC #200830)



LEGEND:

- = Stop Sign
- = Traffic Signal
- = Speed Limit
- $\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
- 1,000 = Average Daily Traffic

Figure 3
**Existing Lane
Geometry and Traffic Control**
Muegge Farms TIA (LSC #170931)



* Based on Figure 3b of the 2020 Worthman Acres TIA by LSC with the through traffic volumes grown for one year at 3.7 percent based on CDOT 20-year factor of 2.07. Side road volumes assumed little or no growth.

** East/west volumes based on the higher of the counts in Figure 3a and the 2017 count from Figure 3 of the Muegge Farms TIA by LSC grown for four years at annual rate of three percent. Volumes to/from the south were balanced with the other two intersections.

LEGEND:

$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$
 1,000 = Average Daily Traffic

Figure 3b
**Existing Traffic,
 Adjusted for Pandemic**
 Dollar General - Bennett (LSC #210660)

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board, 2016, 6th Edition

UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

LOS	Average Vehicle Control Delay	<u>Operational Characteristics</u>
A	<10 seconds	Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn.
B	10 to 15 seconds	Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. <u>The delay could be up to 15 seconds.</u> Left-turning vehicles on the uncontrolled street may have to wait to make their turn.
C	15 to 25 seconds	Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. <u>Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane.</u>
D	25 to 35 seconds	<u>This is the point at which a traffic signal may be warranted for this intersection.</u> The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points.
E	35 to 50 seconds	The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. <u>There is a high probability that this intersection will meet traffic signal warrants.</u> The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach.
F	>50 seconds	The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. <u>The only remedy for these long delays is installing a traffic signal or restricting the accesses.</u> The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns.

HCM 6th TWSC
1: S. 1st Street & E. Colfax Avenue

Existing
AM Peak

Intersection						
Int Delay, s/veh	6.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	35	40	265	40	25	210
Future Vol, veh/h	35	40	265	40	25	210
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Free
Storage Length	-	175	195	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	43	288	43	27	228

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	81	0	657
Stage 1	-	-	-	-	38
Stage 2	-	-	-	-	619
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1517	-	430
Stage 1	-	-	-	-	984
Stage 2	-	-	-	-	537
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1517	-	348
Mov Cap-2 Maneuver	-	-	-	-	348
Stage 1	-	-	-	-	984
Stage 2	-	-	-	-	435

Approach	EB	WB	NB
HCM Control Delay, s	0	6.9	16.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	348	-	-	-	1517	-
HCM Lane V/C Ratio	0.078	-	-	-	0.19	-
HCM Control Delay (s)	16.2	0	-	-	7.9	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	-	0.7	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	25	35	15	210	280	25
Future Vol, veh/h	25	35	15	210	280	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	38	16	228	304	27

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	564	304	331	0	-	0
Stage 1	304	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	487	736	1228	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	481	736	1228	-	-	-
Mov Cap-2 Maneuver	481	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1228	-	481	736	-	-
HCM Lane V/C Ratio	0.013	-	0.056	0.052	-	-
HCM Control Delay (s)	8	-	12.9	10.2	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0.2	-	-

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	60	15	210	40	15	300
Future Vol, veh/h	60	15	210	40	15	300
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	305	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	16	228	43	16	326

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	608	250	0	0	271
Stage 1	250	-	-	-	-
Stage 2	358	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	459	789	-	-	1292
Stage 1	792	-	-	-	-
Stage 2	707	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	453	789	-	-	1292
Mov Cap-2 Maneuver	453	-	-	-	-
Stage 1	792	-	-	-	-
Stage 2	699	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	495	1292
HCM Lane V/C Ratio	-	-	0.165	0.013
HCM Control Delay (s)	-	-	13.7	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

HCM 6th TWSC
4: Centennial Drive & ATM Access

Existing
AM Peak

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	55	30	10	5	1
Future Vol, veh/h	1	55	30	10	5	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	60	33	11	5	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	44	0	-	0	101 39
Stage 1	-	-	-	-	39 -
Stage 2	-	-	-	-	62 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1564	-	-	-	898 1033
Stage 1	-	-	-	-	983 -
Stage 2	-	-	-	-	961 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1564	-	-	-	897 1033
Mov Cap-2 Maneuver	-	-	-	-	897 -
Stage 1	-	-	-	-	982 -
Stage 2	-	-	-	-	961 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1564	-	-	-	917
HCM Lane V/C Ratio	0.001	-	-	-	0.007
HCM Control Delay (s)	7.3	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

HCM 6th TWSC
1: S. 1st Street & E. Colfax Avenue

Existing
PM Peak

Intersection						
Int Delay, s/veh	6.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	75	40	260	45	40	315
Future Vol, veh/h	75	40	260	45	40	315
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Free
Storage Length	-	175	195	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	43	283	49	43	342

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	125	0	697
Stage 1	-	-	-	-	82
Stage 2	-	-	-	-	615
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1462	-	407
Stage 1	-	-	-	-	941
Stage 2	-	-	-	-	539
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1462	-	328
Mov Cap-2 Maneuver	-	-	-	-	328
Stage 1	-	-	-	-	941
Stage 2	-	-	-	-	434

Approach	EB	WB	NB
HCM Control Delay, s	0	6.9	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	328	-	-	-	1462	-
HCM Lane V/C Ratio	0.133	-	-	-	0.193	-
HCM Control Delay (s)	17.6	0	-	-	8.1	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	-	0.7	-

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	30	40	70	325	275	25
Future Vol, veh/h	30	40	70	325	275	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	43	76	353	299	27

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	804	299	326	0	-	0
Stage 1	299	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	352	741	1234	-	-	-
Stage 1	752	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	330	741	1234	-	-	-
Mov Cap-2 Maneuver	330	-	-	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	606	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1234	-	330	741	-	-
HCM Lane V/C Ratio	0.062	-	0.099	0.059	-	-
HCM Control Delay (s)	8.1	-	17.1	10.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	0.2	-	-

HCM 6th TWSC
3: S. 1st Street & Bennett Avenue

Existing
PM Peak

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T		T	T
Traffic Vol, veh/h	55	45	350	80	40	275
Future Vol, veh/h	55	45	350	80	40	275
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	305	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	49	380	87	43	299

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	809	424	0	0	467	0
Stage 1	424	-	-	-	-	-
Stage 2	385	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	350	630	-	-	1094	-
Stage 1	660	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	336	630	-	-	1094	-
Mov Cap-2 Maneuver	336	-	-	-	-	-
Stage 1	660	-	-	-	-	-
Stage 2	661	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.4	0	1.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	425	1094
HCM Lane V/C Ratio	-	-	0.256	0.04
HCM Control Delay (s)	-	-	16.4	8.4
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1	0.1

HCM 6th TWSC
4: Centennial Drive & ATM Access

Existing
PM Peak

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	1	45	75	20	25	1
Future Vol, veh/h	1	45	75	20	25	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	49	82	22	27	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	104	0	-	0	144 93
Stage 1	-	-	-	-	93 -
Stage 2	-	-	-	-	51 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1488	-	-	-	849 964
Stage 1	-	-	-	-	931 -
Stage 2	-	-	-	-	971 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1488	-	-	-	848 964
Mov Cap-2 Maneuver	-	-	-	-	848 -
Stage 1	-	-	-	-	930 -
Stage 2	-	-	-	-	971 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1488	-	-	-	852
HCM Lane V/C Ratio	0.001	-	-	-	0.033
HCM Control Delay (s)	7.4	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	6.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	38	45	290	45	30	235
Future Vol, veh/h	38	45	290	45	30	235
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Free
Storage Length	-	175	195	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	49	315	49	33	255

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	90	0	720
Stage 1	-	-	-	-	41
Stage 2	-	-	-	-	679
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1505	-	395
Stage 1	-	-	-	-	981
Stage 2	-	-	-	-	504
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1505	-	312
Mov Cap-2 Maneuver	-	-	-	-	312
Stage 1	-	-	-	-	981
Stage 2	-	-	-	-	399

Approach	EB	WB	NB
HCM Control Delay, s	0	6.9	17.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	312	-	-	-	1505	-
HCM Lane V/C Ratio	0.105	-	-	-	0.209	-
HCM Control Delay (s)	17.9	0	-	-	8	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	-	0.8	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	26	36	16	240	310	26
Future Vol, veh/h	26	36	16	240	310	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	39	17	261	337	28

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	632	337	365	0	-	0
Stage 1	337	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	444	705	1194	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	438	705	1194	-	-	-
Mov Cap-2 Maneuver	438	-	-	-	-	-
Stage 1	713	-	-	-	-	-
Stage 2	755	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1194	-	438	705	-	-
HCM Lane V/C Ratio	0.015	-	0.065	0.056	-	-
HCM Control Delay (s)	8.1	-	13.8	10.4	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0.2	-	-

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T		T	T
Traffic Vol, veh/h	75	20	235	50	20	325
Future Vol, veh/h	75	20	235	50	20	325
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	305	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	22	255	54	22	353

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	679	282	0	0	309
Stage 1	282	-	-	-	-
Stage 2	397	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	417	757	-	-	1252
Stage 1	766	-	-	-	-
Stage 2	679	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	409	757	-	-	1252
Mov Cap-2 Maneuver	409	-	-	-	-
Stage 1	766	-	-	-	-
Stage 2	667	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.3	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	453	1252
HCM Lane V/C Ratio	-	-	0.228	0.017
HCM Control Delay (s)	-	-	15.3	7.9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	1	57	32	10	5	1
Future Vol, veh/h	1	57	32	10	5	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	62	35	11	5	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	46	0	-	0	105 41
Stage 1	-	-	-	-	41 -
Stage 2	-	-	-	-	64 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1562	-	-	-	893 1030
Stage 1	-	-	-	-	981 -
Stage 2	-	-	-	-	959 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1562	-	-	-	892 1030
Mov Cap-2 Maneuver	-	-	-	-	892 -
Stage 1	-	-	-	-	980 -
Stage 2	-	-	-	-	959 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1562	-	-	-	912
HCM Lane V/C Ratio	0.001	-	-	-	0.007
HCM Control Delay (s)	7.3	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	6.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	82	45	285	50	45	350
Future Vol, veh/h	82	45	285	50	45	350
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Free
Storage Length	-	175	195	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	89	49	310	54	49	380

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	138	0	763
Stage 1	-	-	-	-	89
Stage 2	-	-	-	-	674
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1446	-	372
Stage 1	-	-	-	-	934
Stage 2	-	-	-	-	506
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1446	-	292
Mov Cap-2 Maneuver	-	-	-	-	292
Stage 1	-	-	-	-	934
Stage 2	-	-	-	-	398

Approach	EB	WB	NB
HCM Control Delay, s	0	6.9	19.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	292	-	-	-	1446	-
HCM Lane V/C Ratio	0.168	-	-	-	0.214	-
HCM Control Delay (s)	19.8	0	-	-	8.2	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	0.6	-	-	-	0.8	-

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	31	41	72	365	305	26
Future Vol, veh/h	31	41	72	365	305	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	45	78	397	332	28

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	885	332	360	0	-	0
Stage 1	332	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	315	710	1199	-	-	-
Stage 1	727	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	295	710	1199	-	-	-
Mov Cap-2 Maneuver	295	-	-	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	576	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1199	-	295	710	-	-
HCM Lane V/C Ratio	0.065	-	0.114	0.063	-	-
HCM Control Delay (s)	8.2	-	18.8	10.4	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0.2	-	-

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	65	55	380	95	50	295
Future Vol, veh/h	65	55	380	95	50	295
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	305	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	60	413	103	54	321

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	894	465	0	0	516
Stage 1	465	-	-	-	-
Stage 2	429	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	312	597	-	-	1050
Stage 1	632	-	-	-	-
Stage 2	657	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	296	597	-	-	1050
Mov Cap-2 Maneuver	296	-	-	-	-
Stage 1	632	-	-	-	-
Stage 2	623	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.1	0	1.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	385	1050
HCM Lane V/C Ratio	-	-	0.339	0.052
HCM Control Delay (s)	-	-	19.1	8.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.5	0.2

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	47	79	20	25	1
Future Vol, veh/h	1	47	79	20	25	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	51	86	22	27	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	108	0	-	0	150 97
Stage 1	-	-	-	-	97 -
Stage 2	-	-	-	-	53 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1483	-	-	-	842 959
Stage 1	-	-	-	-	927 -
Stage 2	-	-	-	-	970 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1483	-	-	-	841 959
Mov Cap-2 Maneuver	-	-	-	-	841 -
Stage 1	-	-	-	-	926 -
Stage 2	-	-	-	-	970 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1483	-	-	-	845
HCM Lane V/C Ratio	0.001	-	-	-	0.033
HCM Control Delay (s)	7.4	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	6.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	38	55	302	45	35	242
Future Vol, veh/h	38	55	302	45	35	242
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Free
Storage Length	-	175	195	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	60	328	49	38	263

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	101	0	746
Stage 1	-	-	-	-	41
Stage 2	-	-	-	-	705
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1491	-	381
Stage 1	-	-	-	-	981
Stage 2	-	-	-	-	490
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1491	-	297
Mov Cap-2 Maneuver	-	-	-	-	297
Stage 1	-	-	-	-	981
Stage 2	-	-	-	-	382

Approach	EB	WB	NB
HCM Control Delay, s	0	7	18.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	297	-	-	-	1491	-
HCM Lane V/C Ratio	0.128	-	-	-	0.22	-
HCM Control Delay (s)	18.9	0	-	-	8.1	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	-	0.8	-

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	59	53	239	307	51
Future Vol, veh/h	40	59	53	239	307	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	64	58	260	334	55

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	710	334	389	0	-	0
Stage 1	334	-	-	-	-	-
Stage 2	376	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	400	708	1170	-	-	-
Stage 1	725	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	380	708	1170	-	-	-
Mov Cap-2 Maneuver	380	-	-	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	694	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	1.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1170	-	380	708	-	-
HCM Lane V/C Ratio	0.049	-	0.114	0.091	-	-
HCM Control Delay (s)	8.2	-	15.7	10.6	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0.3	-	-

HCM 6th TWSC
3: S. 1st Street & Bennett Avenue

2024 Total
AM Peak

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑	↑	↑	↑
Traffic Vol, veh/h	75	30	260	50	25	340
Future Vol, veh/h	75	30	260	50	25	340
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	273	305	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	33	283	54	27	370

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	707	283	0	0	337
Stage 1	283	-	-	-	-
Stage 2	424	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	402	756	-	-	1222
Stage 1	765	-	-	-	-
Stage 2	660	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	393	756	-	-	1222
Mov Cap-2 Maneuver	393	-	-	-	-
Stage 1	765	-	-	-	-
Stage 2	645	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.5	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	455	1222
HCM Lane V/C Ratio	-	-	0.251	0.022
HCM Control Delay (s)	-	-	15.5	8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1	0.1

HCM 6th TWSC
4: Site Access/ATM Access & Centennial Drive

2024 Total
AM Peak

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	56	7	62	32	10	3	0	38	5	0	1
Future Vol, veh/h	1	56	7	62	32	10	3	0	38	5	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	61	8	67	35	11	3	0	41	5	0	1

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	46	0	0	69	0	0	242	247	65	263	246	41
Stage 1	-	-	-	-	-	-	67	67	-	175	175	-
Stage 2	-	-	-	-	-	-	175	180	-	88	71	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1562	-	-	1532	-	-	712	655	999	690	656	1030
Stage 1	-	-	-	-	-	-	943	839	-	827	754	-
Stage 2	-	-	-	-	-	-	827	750	-	920	836	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1562	-	-	1532	-	-	686	625	999	638	626	1030
Mov Cap-2 Maneuver	-	-	-	-	-	-	686	625	-	638	626	-
Stage 1	-	-	-	-	-	-	942	838	-	826	720	-
Stage 2	-	-	-	-	-	-	789	716	-	881	835	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	0.1		4.4		8.9		10.3	
HCM LOS					A		B	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	967	1562	-	-	1532	-	-	681
HCM Lane V/C Ratio	0.046	0.001	-	-	0.044	-	-	0.01
HCM Control Delay (s)	8.9	7.3	0	-	7.5	0	-	10.3
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

HCM 6th TWSC
1: S. 1st Street & E. Colfax Avenue

2024 Total
PM Peak

Intersection						
Int Delay, s/veh	7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	82	58	302	50	60	370
Future Vol, veh/h	82	58	302	50	60	370
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Free
Storage Length	-	175	195	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	89	63	328	54	65	402

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	152	0	799
Stage 1	-	-	-	-	89
Stage 2	-	-	-	-	710
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1429	-	355
Stage 1	-	-	-	-	934
Stage 2	-	-	-	-	487
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1429	-	273
Mov Cap-2 Maneuver	-	-	-	-	273
Stage 1	-	-	-	-	934
Stage 2	-	-	-	-	375

Approach	EB	WB	NB
HCM Control Delay, s	0	7.1	22.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	273	-	-	-	1429	-
HCM Lane V/C Ratio	0.239	-	-	-	0.23	-
HCM Control Delay (s)	22.3	0	-	-	8.3	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	0.9	-	-	-	0.9	-

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	72	100	126	362	301	60
Future Vol, veh/h	72	100	126	362	301	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	78	109	137	393	327	65

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	994	327	392	0	-	0
Stage 1	327	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	272	714	1167	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	240	714	1167	-	-	-
Mov Cap-2 Maneuver	240	-	-	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	510	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.7	2.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1167	-	240	714	-	-
HCM Lane V/C Ratio	0.117	-	0.326	0.152	-	-
HCM Control Delay (s)	8.5	-	27.1	10.9	-	-
HCM Lane LOS	A	-	D	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1.4	0.5	-	-

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑	↗↘	↘↗	↑
Traffic Vol, veh/h	65	68	415	95	68	335
Future Vol, veh/h	65	68	415	95	68	335
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	273	305	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	74	451	103	74	364

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	963	451	0	0	554
Stage 1	451	-	-	-	-
Stage 2	512	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	284	608	-	-	1016
Stage 1	642	-	-	-	-
Stage 2	602	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	263	608	-	-	1016
Mov Cap-2 Maneuver	263	-	-	-	-
Stage 1	642	-	-	-	-
Stage 2	558	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.8	0	1.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	370	1016
HCM Lane V/C Ratio	-	-	0.391	0.073
HCM Control Delay (s)	-	-	20.8	8.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.8	0.2

HCM 6th TWSC
4: Site Access/ATM Access & Centennial Drive

2024 Total
PM Peak

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	44	12	91	76	20	13	0	103	25	0	1
Future Vol, veh/h	1	44	12	91	76	20	13	0	103	25	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	48	13	99	83	22	14	0	112	27	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	61	0	0	350	360	55	405	355	94
Stage 1	-	-	-	-	-	-	57	57	-	292	292	-
Stage 2	-	-	-	-	-	-	293	303	-	113	63	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1542	-	-	605	567	1012	556	571	963
Stage 1	-	-	-	-	-	-	955	847	-	716	671	-
Stage 2	-	-	-	-	-	-	715	664	-	892	842	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1486	-	-	1542	-	-	572	528	1012	468	532	963
Mov Cap-2 Maneuver	-	-	-	-	-	-	572	528	-	468	532	-
Stage 1	-	-	-	-	-	-	954	846	-	715	625	-
Stage 2	-	-	-	-	-	-	666	619	-	793	841	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			3.6			9.5			13		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	932	1486	-	-	1542	-	-	477
HCM Lane V/C Ratio	0.135	0.001	-	-	0.064	-	-	0.059
HCM Control Delay (s)	9.5	7.4	0	-	7.5	0	-	13
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.2	-	-	0.2

Intersection						
Int Delay, s/veh	4.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	65	75	175	80	50	135
Future Vol, veh/h	65	75	175	80	50	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Free
Storage Length	-	175	195	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	82	190	87	54	147

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	153	0	538
Stage 1	-	-	-	-	71
Stage 2	-	-	-	-	467
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1428	-	504
Stage 1	-	-	-	-	952
Stage 2	-	-	-	-	631
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1428	-	437
Mov Cap-2 Maneuver	-	-	-	-	437
Stage 1	-	-	-	-	952
Stage 2	-	-	-	-	547

Approach	EB	WB	NB
HCM Control Delay, s	0	5.4	14.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	437	-	-	-	1428	-
HCM Lane V/C Ratio	0.124	-	-	-	0.133	-
HCM Control Delay (s)	14.4	0	-	-	7.9	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	-	0.5	-

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↗	↗	↙
Traffic Vol, veh/h	30	45	30	155	220	30
Future Vol, veh/h	30	45	30	155	220	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	49	33	168	239	33

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	473	239	272	0	-	0
Stage 1	239	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	550	800	1291	-	-	-
Stage 1	801	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	536	800	1291	-	-	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	780	-	-	-	-	-
Stage 2	805	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	1.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1291	-	536	800	-	-
HCM Lane V/C Ratio	0.025	-	0.061	0.061	-	-
HCM Control Delay (s)	7.9	-	12.2	9.8	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.2	-	-

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↙		↑	↗↘	↘↙	↑
Traffic Vol, veh/h	95	25	160	60	25	240
Future Vol, veh/h	95	25	160	60	25	240
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	273	305	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	103	27	174	65	27	261

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	489	174	0	0	239
Stage 1	174	-	-	-	-
Stage 2	315	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	538	869	-	-	1328
Stage 1	856	-	-	-	-
Stage 2	740	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	527	869	-	-	1328
Mov Cap-2 Maneuver	527	-	-	-	-
Stage 1	856	-	-	-	-
Stage 2	725	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.1	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	574	1328
HCM Lane V/C Ratio	-	-	0.227	0.02
HCM Control Delay (s)	-	-	13.1	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0.1

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	60	0	0	35	25	0	0	0	15	0	2
Future Vol, veh/h	3	60	0	0	35	25	0	0	0	15	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	65	0	0	38	27	0	0	0	16	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	65	0	0	124	136	65	123	123	52
Stage 1	-	-	-	-	-	-	71	71	-	52	52	-
Stage 2	-	-	-	-	-	-	53	65	-	71	71	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1537	-	-	850	755	999	852	767	1016
Stage 1	-	-	-	-	-	-	939	836	-	961	852	-
Stage 2	-	-	-	-	-	-	960	841	-	939	836	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1537	-	-	1537	-	-	847	753	999	850	765	1016
Mov Cap-2 Maneuver	-	-	-	-	-	-	847	753	-	850	765	-
Stage 1	-	-	-	-	-	-	937	834	-	959	852	-
Stage 2	-	-	-	-	-	-	958	841	-	937	834	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	0	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1537	-	-	1537	-	-	867
HCM Lane V/C Ratio	-	0.002	-	-	-	-	-	0.021
HCM Control Delay (s)	0	7.3	0	-	0	-	-	9.2
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

Intersection						
Int Delay, s/veh	4.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	140	75	175	85	75	175
Future Vol, veh/h	140	75	175	85	75	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Free
Storage Length	-	175	195	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	152	82	190	92	82	190

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	234	0	624
Stage 1	-	-	-	-	152
Stage 2	-	-	-	-	472
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1333	-	449
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	628
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1333	-	385
Mov Cap-2 Maneuver	-	-	-	-	385
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	538

Approach	EB	WB	NB
HCM Control Delay, s	0	5.5	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	385	-	-	-	1333	-
HCM Lane V/C Ratio	0.212	-	-	-	0.143	-
HCM Control Delay (s)	16.8	0	-	-	8.2	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	0.8	-	-	-	0.5	-

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↙	↗	↙	↗	↗	↙
Traffic Vol, veh/h	35	65	95	215	220	30
Future Vol, veh/h	35	65	95	215	220	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	71	103	234	239	33

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	679	239	272	0	-	0
Stage 1	239	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	417	800	1291	-	-	-
Stage 1	801	-	-	-	-	-
Stage 2	649	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	384	800	1291	-	-	-
Mov Cap-2 Maneuver	384	-	-	-	-	-
Stage 1	737	-	-	-	-	-
Stage 2	649	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	2.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1291	-	384	800	-	-
HCM Lane V/C Ratio	0.08	-	0.099	0.088	-	-
HCM Control Delay (s)	8	-	15.4	9.9	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.3	0.3	-	-

Intersection						
Int Delay, s/veh	3.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑	↑	↑	↑
Traffic Vol, veh/h	85	65	245	125	60	225
Future Vol, veh/h	85	65	245	125	60	225
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	273	305	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	71	266	136	65	245

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	641	266	0	0	402	0
Stage 1	266	-	-	-	-	-
Stage 2	375	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	439	773	-	-	1157	-
Stage 1	779	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	414	773	-	-	1157	-
Mov Cap-2 Maneuver	414	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	656	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.1	0	1.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	518	1157
HCM Lane V/C Ratio	-	-	0.315	0.056
HCM Control Delay (s)	-	-	15.1	8.3
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.3	0.2

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	50	0	0	80	45	0	0	0	50	0	4
Future Vol, veh/h	4	50	0	0	80	45	0	0	0	50	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	54	0	0	87	49	0	0	0	54	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	136	0	0	54	0	0	176	198	54	174	174	112
Stage 1	-	-	-	-	-	-	62	62	-	112	112	-
Stage 2	-	-	-	-	-	-	114	136	-	62	62	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1448	-	-	1551	-	-	786	698	1013	789	719	941
Stage 1	-	-	-	-	-	-	949	843	-	893	803	-
Stage 2	-	-	-	-	-	-	891	784	-	949	843	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1448	-	-	1551	-	-	780	696	1013	787	717	941
Mov Cap-2 Maneuver	-	-	-	-	-	-	780	696	-	787	717	-
Stage 1	-	-	-	-	-	-	946	840	-	890	803	-
Stage 2	-	-	-	-	-	-	887	784	-	946	840	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	0	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1448	-	-	1551	-	-	797
HCM Lane V/C Ratio	-	0.003	-	-	-	-	-	0.074
HCM Control Delay (s)	0	7.5	0	-	0	-	-	9.9
HCM Lane LOS	A	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.2

Intersection						
Int Delay, s/veh	4.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	65	85	187	80	55	142
Future Vol, veh/h	65	85	187	80	55	142
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Free
Storage Length	-	175	195	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	92	203	87	60	154

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	163	0	564
Stage 1	-	-	-	-	71
Stage 2	-	-	-	-	493
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1416	-	487
Stage 1	-	-	-	-	952
Stage 2	-	-	-	-	614
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1416	-	417
Mov Cap-2 Maneuver	-	-	-	-	417
Stage 1	-	-	-	-	952
Stage 2	-	-	-	-	526

Approach	EB	WB	NB
HCM Control Delay, s	0	5.6	15.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	417	-	-	-	1416	-
HCM Lane V/C Ratio	0.143	-	-	-	0.144	-
HCM Control Delay (s)	15.1	0	-	-	8	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	-	0.5	-

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	44	68	67	153	217	55
Future Vol, veh/h	44	68	67	153	217	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	74	73	166	236	60

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	548	236	296	0	-	0
Stage 1	236	-	-	-	-	-
Stage 2	312	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	497	803	1265	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	742	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	468	803	1265	-	-	-
Mov Cap-2 Maneuver	468	-	-	-	-	-
Stage 1	756	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	2.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1265	-	468	803	-	-
HCM Lane V/C Ratio	0.058	-	0.102	0.092	-	-
HCM Control Delay (s)	8	-	13.6	9.9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	0.3	-	-

HCM 6th TWSC
 3: S. 1st Street & Bennett Avenue

2042 Total
 AM Peak

Intersection						
Int Delay, s/veh	3.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑	↑	↑	↑
Traffic Vol, veh/h	95	35	185	60	30	255
Future Vol, veh/h	95	35	185	60	30	255
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	273	305	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	103	38	201	65	33	277

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	544	201	0	0	266	0
Stage 1	201	-	-	-	-	-
Stage 2	343	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	500	840	-	-	1298	-
Stage 1	833	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	488	840	-	-	1298	-
Mov Cap-2 Maneuver	488	-	-	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	701	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.8	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	550	1298
HCM Lane V/C Ratio	-	-	0.257	0.025
HCM Control Delay (s)	-	-	13.8	7.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	1	0.1

HCM 6th TWSC
4: Site Access/ATM Access & Centennial Drive

2042 Total
AM Peak

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	59	7	62	35	25	3	0	38	15	0	2
Future Vol, veh/h	3	59	7	62	35	25	3	0	38	15	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	64	8	67	38	27	3	0	41	16	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	72	0	0	261	273	68	281	264	52
Stage 1	-	-	-	-	-	-	74	74	-	186	186	-
Stage 2	-	-	-	-	-	-	187	199	-	95	78	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1528	-	-	692	634	995	671	641	1016
Stage 1	-	-	-	-	-	-	935	833	-	816	746	-
Stage 2	-	-	-	-	-	-	815	736	-	912	830	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1537	-	-	1528	-	-	665	604	995	619	610	1016
Mov Cap-2 Maneuver	-	-	-	-	-	-	665	604	-	619	610	-
Stage 1	-	-	-	-	-	-	933	831	-	814	712	-
Stage 2	-	-	-	-	-	-	776	702	-	872	828	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			3.8			8.9			10.7		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	960	1537	-	-	1528	-	-	649
HCM Lane V/C Ratio	0.046	0.002	-	-	0.044	-	-	0.028
HCM Control Delay (s)	8.9	7.3	0	-	7.5	0	-	10.7
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection						
Int Delay, s/veh	5.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Vol, veh/h	140	88	192	85	90	195
Future Vol, veh/h	140	88	192	85	90	195
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Free
Storage Length	-	175	195	-	50	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	152	96	209	92	98	212

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	248	0	662
Stage 1	-	-	-	-	152
Stage 2	-	-	-	-	510
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1318	-	427
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	603
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1318	-	359
Mov Cap-2 Maneuver	-	-	-	-	359
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	507

Approach	EB	WB	NB
HCM Control Delay, s	0	5.7	18.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	359	-	-	-	1318	-
HCM Lane V/C Ratio	0.272	-	-	-	0.158	-
HCM Control Delay (s)	18.7	0	-	-	8.2	-
HCM Lane LOS	C	A	-	-	A	-
HCM 95th %tile Q(veh)	1.1	-	-	-	0.6	-

Intersection						
Int Delay, s/veh	4.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↗	↗	↖
Traffic Vol, veh/h	76	124	149	209	216	64
Future Vol, veh/h	76	124	149	209	216	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	135	162	227	235	70

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	786	235	305	0	-	0
Stage 1	235	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	361	804	1256	-	-	-
Stage 1	804	-	-	-	-	-
Stage 2	577	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	314	804	1256	-	-	-
Mov Cap-2 Maneuver	314	-	-	-	-	-
Stage 1	700	-	-	-	-	-
Stage 2	577	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.2	3.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1256	-	314	804	-	-
HCM Lane V/C Ratio	0.129	-	0.263	0.168	-	-
HCM Control Delay (s)	8.3	-	20.5	10.4	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1	0.6	-	-

HCM 6th TWSC
 3: S. 1st Street & Bennett Avenue

2042 Total
 PM Peak

Intersection						
Int Delay, s/veh	3.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑	↑	↑	↑
Traffic Vol, veh/h	85	78	280	125	75	265
Future Vol, veh/h	85	78	280	125	75	265
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	273	305	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	85	304	136	82	288

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	756	304	0	0	440	0
Stage 1	304	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	376	736	-	-	1120	-
Stage 1	748	-	-	-	-	-
Stage 2	641	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	349	736	-	-	1120	-
Mov Cap-2 Maneuver	349	-	-	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	594	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.4	0	1.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	466	1120
HCM Lane V/C Ratio	-	-	0.38	0.073
HCM Control Delay (s)	-	-	17.4	8.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.8	0.2

HCM 6th TWSC
4: ATM Access & Centennial Drive

2042 Total
PM Peak

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	47	12	91	77	45	13	0	103	50	0	4
Future Vol, veh/h	4	47	12	91	77	45	13	0	103	50	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	51	13	99	84	49	14	0	112	54	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	133	0	0	64	0	0	375	397	58	429	379	109
Stage 1	-	-	-	-	-	-	66	66	-	307	307	-
Stage 2	-	-	-	-	-	-	309	331	-	122	72	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1452	-	-	1538	-	-	582	540	1008	536	553	945
Stage 1	-	-	-	-	-	-	945	840	-	703	661	-
Stage 2	-	-	-	-	-	-	701	645	-	882	835	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1452	-	-	1538	-	-	547	501	1008	450	513	945
Mov Cap-2 Maneuver	-	-	-	-	-	-	547	501	-	450	513	-
Stage 1	-	-	-	-	-	-	942	837	-	701	615	-
Stage 2	-	-	-	-	-	-	649	600	-	782	832	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			3.2			9.5			13.8		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	921	1452	-	-	1538	-	-	468
HCM Lane V/C Ratio	0.137	0.003	-	-	0.064	-	-	0.125
HCM Control Delay (s)	9.5	7.5	0	-	7.5	0	-	13.8
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.2	-	-	0.4



Engineering Review Memo

To: Steve Hebert, Town Planning & Economic Development Director
Sara Aragon, Community Development Manager

From: Dan Giroux, PE, Engineering Consultant to the Town

Date: Monday, August 22, 2022

Case: Shops at Bennett, Major Subdivision Plat, Case 22.11 – 2nd Submittal

Subject: Civil Engineering Review

Review Memo Only – no Replat redlines provided for this 2nd Submittal review.

Per the request of the Town of Bennett, Terramax, Inc. has reviewed the 2nd submittal of the Major Subdivision Plat application materials, for the proposed Shops at Bennett Subdivision development.

This review does not constitute a contractual offer to the applicant, and does not relieve the applicant from meeting the Town's requirement that the development comply with all Town Codes and Standards. All prior comments on the development application are still considered effective and in force, until acceptably addressed.

Although every attempt has been made to be diligent, thorough and comprehensive, by the nature of review, and relative time invested versus design and plan development, the Town must reserve the right to make original comments and revision requests in subsequent submittals, even for information already submitted, until final application approval.

I have the following comments to offer on the application materials (no plan redlines included for this submittal at this time):

Final Plat & General

1. Undergrounding of the SH 79 IREA-CORE power overhead lines will be addressed with the Subdivision Agreement (SA) for public improvements required with this subdivision.
2. State Highway 79 widening to full/ultimate build-out western half-section will be addressed with the Subdivision Agreement (SA) for public improvements required with this subdivision.

Water System

1. Submittal 1 comments and responses to carry through to Public Improvement Construction Documents (PI CD's) and SA. No further comments.
2. Confirm 'private easement' v 'public easement' for emergency access and utility access, including sanitary sewer, water, and fire hydrants.

Sanitary Sewer System

1. Submittal 1 comments and responses to carry through to PI CD's and SA. No further comments.

Streets & Access

1. Submittal 1 comments and responses to carry through to PI CD's and SA.
2. I am amenable to phasing of the north-south access drive extension, and Bennett Avenue connection, as warranted by Lot development traffic loading, and as reviewed by the Town Traffic Engineer.
3. Emergency vehicle access and circulation may be addressed with ensuing Lot development Site Plans, including parking lots and potential drive lane circulation.
4. These terms can be addressed with the SA provisions for development phasing proposals.
5. Based on observed Filing 1 Punch List and close-out conditions, the west utility corridor is expected to require a new Centennial Drive service driveway cut, sidewalk crossing, and all-weather surfacing, for utility access, maintenance and service.
 - Maintenance of this area will remain with the property owner.
6. The Centennial Drive driveway cut and sidewalk crossing reconstruction should incorporate a stormwater inlet to intercept and divert Centennial Drive street flows into the existing 36-inch south-to-north CSP storm sewer.
7. With Centennial Drive-79 intersection upgrades, existing affected and adjacent curb & gutter conditions should be reviewed, and deteriorated curb & gutter removed and replaced.

Stormwater

1. Submittal 1 comments and responses to carry through to PI CD's and SA.
2. Based on observed Filing 1 Punch List and close-out conditions, the west utility corridor is expected to require storm inlets to collect surface flows and protect adjacent residential lots to the west.
 - A drain pan with all-weather surfacing may also be acceptable.
3. Based on observed Filing 1 Punch List and close-out conditions, the stormwater detention pond will require future expansion to attain full build-out volume capacity, unless final lot development hardscape areas are reduced from initial subdivision estimates, and related original pond design.
4. Based on observed Filing 1 Punch List and close-out conditions, the stormwater detention pond overflow will be re-evaluated for outflow near the subdivision north-south drive lane, to Centennial Drive, to better protect the west utility corridor and residential lots further west.

Steve, Sara, this concludes my civil engineering review of the 2nd Submittal application materials for the Shops at Bennett Major Subdivision Plat. Please let me know if you have any questions, or require additional information pertaining to the submitted information, or my review.

9191 Jamaica Street
Englewood, CO 80112
United States
T +1.303.771.0900

www.jacobs.com

Subject The Shops at Bennett Subdivision, Amendment No. 1

Attention Steve Hebert, AICP, Bennett Planning & Economic Development Manager
 Sara Aragon, Community Development Manager

From Mike Heugh, PE
 Town Traffic Engineer

Date August 17, 2022

Copies to Dan Giroux, PE, Engineering Consultant to the Town

The Shops at Bennett Subdivision Replat, Amendment No. 1 (04/05/22) – Town Traffic Comments

1. No comments

Shops at Bennett Square TIA (dated 07/12/22) – Town Traffic Comments

1. I'm concerned with the left-turn lanes on SH 79 and what CDOT is going to allow and what is in the best interest of the Town. Looking at the CDOT data provided (pages 20 & 21), the 35mph to 45 mph change is somewhere along the frontage of Shops. State Highway Access Code says that for deceleration lanes, the speed at the beginning of the lane should dictate the length. Can it be determined where this speed change takes place to better stripe the left-turn lanes on SH 79? 35 mph would allow the left turn lane to be taper + storage, shorter than what is being proposed. Also, SHAC says that the taper should be reduced first when overall length requirements can't be met. If requirements can't be met, is there a recommendation to reduce the taper and provide more? I'm happy to discuss further if needed.
2. Civil construction drawings show center left turn lanes are 14'. The 162' taper shown within this report is based on a 12' shift. This comment was made on civil plans. Please coordinate with designers on what that shift actually is. This ties to previous comment on speed limit where these tapers are taking place.
3. For future reports please detail recommended improvements in your conclusion section. Using this report as a specific example, the report simply says, "with recommended improvements shown in Figure 10." It is easier for reviewer and other readers of these reports that the conclusion section states the recommendations. Specific details, such as turn lane lengths, etc. can be shown in figures. No revision to this report is necessary and I don't see this as a consistent issue in reports by this author. Simply stating my preference as the reviewer.

The Shops at Bennett Subdivision Amendment No. 1, Construction Drawings (07/18/22) – Town Traffic
Comments

General Comments

1. Please add a signing and striping sheet in the plan set which gives a clearer view of what is happening with traffic control. The details for signing and striping elements should be removed from other sheets unless they are needed for some reason.
2. With the new curb return at Centennial Ave, the existing stop sign needs to be reset. Please add this to the plans.
3. Is there crosswalk striping across Centennial Ave? Aerial photos don't show it. If it is existing and being extended as shown on sheet 10, this needs to be called out and detailed.
4. Is striping being proposed on Centennial Ave? Page 10 shows striping in bold so I'm assuming this is proposed. This needs to be detailed with stationing and line types

Page 9

1. Stop signs at the roadway bend aren't needed. Please remove.

Page 10

1. Change callout for SBR at Bennett Ave to "Lane Drop" from "Dashed". This should be 8" instead of 4".
2. Turn arrows need to be called out and stationed. Locations based on CDOT standards.
3. Removal of existing striping required to stripe the NBL at Bennett Ave should be callout out. New striping needs callout.
4. Add "Right Lane Must Turn Right" sign (R3-7) to the SBR lane at Bennett Ave. To be placed where drop line turns to channelizing.
5. Plan shows the re-direct taper to be 162' which is based on 13.5:1 and a 12' shift. The center left turn lanes are 14' which would increase this re-direct taper. Please verify what the shifting distance is and revise if necessary.

STATE OF COLORADO

Traffic & Safety

Region 1

2829 W. Howard Place

Denver, Colorado 80204



COLORADO
Department of Transportation

Project Name: **Shops at Bennett Square**

Print Date:

Highway:

Mile Marker:

Drainage Comments:

No new comments; previous comments still stand

Environmental Comments:

For ANY ground disturbance/work within CDOT ROW---

Required:

Arch/History/Paleo:

Since this is a permit, a file search for Arch and History is required. If the file search identifies anything, a more extensive report will be required. If nothing is identified, then the file search should be sufficient. For the file search contact:

Cultural/History File Search: <http://www.historycolorado.org/oahp/file-search>

email: hc_filesearch@state.co.us

Paleo File Search: <https://www.colorado.edu/cumuseum/research-collections/paleontology/policies-procedure> and <https://www.dmns.org/science/earth-sciences/earth-sciences-collections/>

The ECIS will be used to support HazMat requirements.

Non-historic 4f does not apply.

If any non-historic 6f properties will be impacted or disturbed applicant shall coordinate with Veronica McCall veronica.mccall@state.co.us

Info for Applicant/Contractor:

The Permittee shall complete a stormwater management plan (SWMP) which must be prepared with good engineering, hydrologic, and pollution control practices and include at a minimum the following components: qualified stormwater manager; spill prevention and response plan; materials handling; potential sources of pollution; implementation of control measures; site description; and site map.

In addition, the Permittee shall comply with all local/state/federal regulations and obtain all necessary permits. Permittee shall comply with CDOT's MS4 Permit. When working within a local MS4 jurisdictional boundary, the permittee shall obtain concurrence from the local MS4 that the local MS4 will provide construction stormwater oversight. The local MS4 concurrence documentation shall be retained with the SWMP.

Clear Zone: It is the responsibility of the engineer/architect who stamps the plans to ensure that: any new landscaping/trees are outside of the clear zones for any State Highway/CDOT ROW and that the new landscaping/trees do not interfere with site lines from any State Highway/CDOT ROW.

Landscape: Any new or changes to existing landscaping within CDOT ROW must be reviewed and approved by CDOT. Landscaping plans should be submitted and should include details of all proposed plant species and seed mixes/ratios.

8/1/2022: Once the above mentioned items are received Environmental review will continue.

Traffic Comments:

Why is there a stop sign at Station 13+50? This seems not needed.

In the TIS provide Queue analysis. Use methodology per NHCPR 457 for left turn queues.

We need some discussion in the TIS about the spacing of the full movement intersection. This doesn't meet the 1/2 mile spacing based on the State Highway Access Code. The discussion should include safety and operations on why this can be allowed.

Jason Igo 8/11/2022

Right of Way Comments:

Resident Engineer Comments:

8/8/22 CLJ

- Please provide a typical section showing the proposed SH-79 configuration.
- If the project intends to change the profile of SH-79 in this area, curves will be required for any grade difference greater than 0.2%.

Permits Comments:

Need CDOT details for all work in the CDOT ROW. Label ramp types. Include pavement section detail. All thermoplastic is inlaid. CDOT ROW varies is not correct. Show and label CDOT ROW and label as such. 3rd party inspection required. **RLW Aug 1 2022**



Planning Town Of Bennett <planning@bennett.co.us>

RE: Shops at Bennett, Major Subdivision Plat

Brooks Kaufman <BKaufman@core.coop>
To: Town of Bennett Planning <planning@bennett.co.us>

Wed, Mar 30, 2022 at 11:16 AM

Steve

CORE Electric Cooperative has no comments.

Respectfully

Brooks Kaufman

Lands and Rights of Way Manager

800.332.9540 MAIN

720.733.5493 DIRECT

303.912.0765 MOBILE

www.core.coop.



From: Town of Bennett Planning <planning@bennett.co.us>
Sent: Monday, March 14, 2022 10:59 AM
To: United States Postal Service <sarah.e.zawatzki@usps.gov>; Bennett School District 29J ATTN: Robin Purdy <robinp@bsd29j.com>; Bennett School District 29J: ATTN: Jennifer West <jenniferw@bsd29j.com>; Bennett School District 29J: ATTN: Keith Yaich <keithy@bsd29j.com>; Robin Price <rprice@bennett.co.us>; Daymon Johnson <djohnson@bennett.co.us>; Bennett Rec District <director@bennettrec.org>; Victoria Flamini <VictoriaFlamini@bennettfirerescue.org>; Bennett Watkins Fire Rescue <calebconnor@bennettfirerescue.org>; Marilyn Cross - CDOT <Marilyn.Cross@state.co.us>; Colorado Department of Transportation (CDOT) Assistant Access Manager <david.dixon@state.co.us>; JGutierrez@summitutilitiesinc.com; GVanderstraten@summitutilitiesinc.com; Brooks

Kaufman <BKaufman@core.coop>; Jehn Water Consultants Inc <gburke@jehnwater.com>; Melinda Culley <melinda@kellypc.com>; Daniel Giroux <dangiroux@terramax.us>; Steve Hebert <shebert@bennett.co.us>; Heugh, Michael <Michael.Heugh@jacobs.com>

Subject: Shops at Bennett, Major Subdivision Plat

CAUTION:

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello All,

Below is a Dropbox link to the Shops at Bennett, Major Subdivision Plat referral package. We appreciate your review and comments. Please send your comments back via this email address or by mail to Town Hall by April 4, 2022.

<https://www.dropbox.com/sh/1w1od7fliyy9yja/AACZijfPPfgXVKZ5NweWr-Uma?dl=0>

If you have any questions, please email or call Steve Hebert at shebert@bennett.co.us or the phone number below.



Planning Department
207 Muegge Way | Bennett CO, 80102
(303)644-3249 | planning@bennett.co.us
townofbennett.colorado.gov



Melinda A. Culley
(303) 298-1601 tel
(303) 298-1627 fax
melinda@kellypc.com

MEMORANDUM

TO: Bennett Planning Department

FROM: Melinda Culley /s/

DATE: August 16, 2022

RE: Shops at Bennett Subdivision, Amendment No. 1

I reviewed the Final Plat for the Shops at Bennett, and have the following comments:

1. Notes 11 and 12 are confusing. One note states that the will own Tract A while the other note indicates that Tract A will be dedicated to the Town. Note 11 mentions that Tract B will be owned and maintained by the , but Sheet 3 indicates that Tract B is not part of this subdivision.
2. Has the Town received an updated title commitment for the property? If not, please provide one.

BENNETT PLANNING AND ZONING COMMISSION

RESOLUTION NO. 2022-17

**A RESOLUTION RECOMMENDING APPROVAL OF
A FINAL PLAT FOR THE SHOPS AT BENNETT SUBDIVISION, AMENDMENT NO. 1**

WHEREAS, there has been submitted to the Planning and Zoning Commission of the Town of Bennett a request for approval of a Final Plat for the Shops at Bennett Subdivision, Amendment No. 1; and

WHEREAS, all materials related to the proposed Final Plat have been reviewed by Town Staff and found with conditions to be in compliance with Town of Bennett subdivision and zoning ordinances; and

WHEREAS, after a noticed public hearing, at which evidence and testimony were entered into the record, the Planning and Zoning Commission finds that the proposed Final Plat should be approved subject to certain conditions.

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING AND ZONING COMMISSION OF THE TOWN OF BENNETT, COLORADO:

Section 1. The Planning and Zoning Commission hereby recommends approval of the proposed Final Plat for the Shops at Bennett Subdivision, Amendment No. 1, subject to the conditions set forth on Exhibit A, attached hereto and incorporated herein by reference.

PASSED AND ADOPTED this 19th DAY OF SEPTEMBER 2022.

Chairperson

ATTEST:

Christina Hart, Secretary

EXHIBIT A
Final Plat for the Shops at Bennett Subdivision, Amendment No. 1
Conditions of Approval

1. Approval of a subdivision agreement (SA) that identifies and guarantees public improvements, including but not limited to streets, sidewalks/trails, water, sanitary sewer, storm water management and undergrounding utilities prior to the issuance of an infrastructure permit.
2. Before recording the final plat, the applicant shall:
 - a. Update plat notes related to easements; maintenance and required site plan review;
 - b. Make other minor modifications as directed by Town Staff, the Town Engineer and Town Attorney

Suggested Motion

I move to approve Resolution No. 2022-17 - A resolution recommending approval of a Final Plat for The Shops at Bennett Subdivision, Amendment No. 1.